



Section II.

Performance Results

CONTENTS

GOAL 1—Clean Air and Global Climate Change	28
GOAL 2—Clean and Safe Water	49
GOAL 3—Land Preservation and Restoration	64
GOAL 4—Healthy Communities and Ecosystems	79
GOAL 5—Compliance and Environmental Stewardship	106
CHAPTER 6—Supporting Achievement of Environmental Results	122

GOAL 1: Clean Air and Global Climate Change



Protect and improve the air so it is healthy to breathe and risks to human health and the environment are reduced. Reduce greenhouse gas intensity by enhancing partnerships with businesses and other sectors.

Since 1970, EPA has been working with its partners and stakeholders to implement the Clean Air Act and other environmental laws to achieve cleaner, healthier air for all Americans. The Agency's strategy for protecting public health relies on national regulatory, voluntary, and market-based programs carried out in combination with state, tribal, and local efforts. By phasing out lead in gasoline, setting tougher standards for vehicle emissions, and

Air pollutant emissions have decreased while economic growth has increased by over 160 percent.

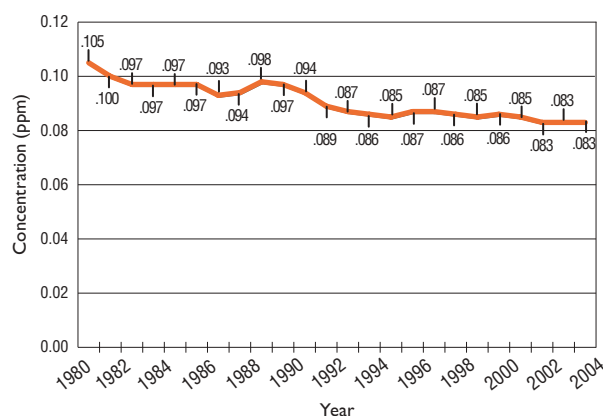
using allowance trading to reduce acid rain precursors, national programs have decreased overall emission of air pollutants by 48 percent since 1970; at the same time, economic growth has increased by over 160 percent. Every year, state and federal criteria air pollutant programs established pursuant to the 1990 Clean Air Act Amendments prevent tens of thousands of premature mortalities, millions of incidences of chronic and acute illness, tens of thousands of hospitalizations and emergency room visits, and millions of lost work days. In addition, these Clean Air Act programs provide significant economic benefits. In 2002, for example, the economic value of the reductions noted above was estimated to exceed \$117 billion, compared to costs of less than \$30 billion.¹

The Clean Air Act addresses three general categories of outdoor air pollution: "criteria" pollutants (e.g., ozone and particulate matter), air toxics, and acid rain.

CRITERIA POLLUTANTS

In addressing criteria pollutants, EPA currently places a high priority on meeting new national ambient air quality standards (NAAQS) for particulate matter (PM) and ozone. Despite significant increases in vehicle travel and energy consumption, EPA, state, tribal, and local government clean air programs have reduced emissions of the volatile organic and nitrogen compounds that form ground-level ozone by 54 and 25 percent, respectively, since 1970. These emissions declined during the 1980s and 1990s, and significant reductions have continued through 2003.² Ozone concentration levels for 2003, the last year for

Ozone Concentrations Levels at Lowest Level since 1980



Based on 3-year rolling averages of annual average fourth maximum 8-hour ozone concentration at 155 monitoring sites.

which quality-assured data are currently available, were the lowest since 1980.

In April 2004, EPA issued boundary designations indicating which areas of the United States have attained the new 8-hour standard for ozone and which have not. (A few areas were designated as unclassifiable.) Under final designations, roughly 2,700 counties met the 8-hour ozone standard. Approximately 125 areas, including approximately 475 counties, were designated nonattainment for the 8-hour standard.³ EPA and state, local, and tribal governments are now working on similar geographic boundary determinations for the fine PM standard; states submitted proposals in February 2004, and EPA will issue final designations by December 2004.

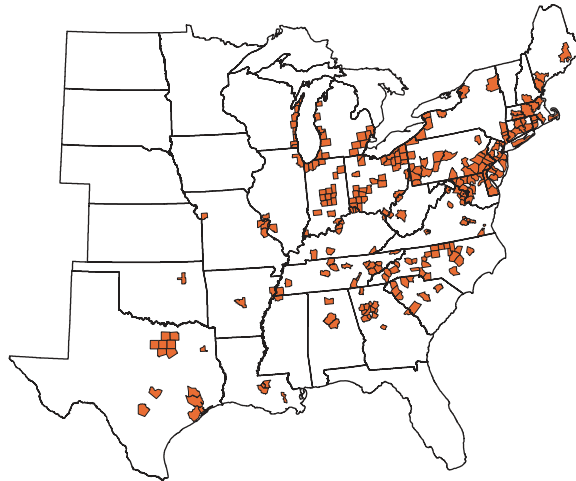
These designations initiate a planning process during which state and local governments in nonattainment areas will prepare plans for achieving clean air. Planning will incorporate federal as well as local measures. At the federal level in FY 2004, EPA proposed the Clean Air Interstate Rule⁴ and promulgated the Clean Air Nonroad Diesel Rule for construction, agricultural, and industrial diesel equipment.⁵ As proposed or final, these two programs—combined with such existing programs as the Tier 2/gasoline sulfur standards for cars and light trucks, the Nitrogen Oxides State Implementation Plan (NO_x SIP) Call Rule to reduce interstate ozone transport, and the Clean Diesel program for new trucks and buses—will bring well over half of counties now monitoring nonattainment into attainment with the fine particle and ozone standards by 2015.

EPA must regularly review standards for criteria pollutants and revise them based on the latest scientific information. The PM standard is next on the Agency's review schedule. Past research has shown that short-term exposure to PM can adversely affect human health and is generally associated with illness and premature death independent of the effects of other, gaseous pollutants

Ozone Pollution

The Interstate Air Quality Rule Together with Other Clean Air Programs Will Bring Cleaner Air to Cities in the East

274 Counties Exceed the 8-Hour Ozone Standard in 2002



Remaining 26 Counties Likely to Exceed the 8-Hour Ozone Standard with Interstate Air Quality Rule in 2015



8-hour Ozone Standard = 85 ppb

in the atmosphere. Other findings suggest that people with lung disease may be more affected by increasing levels of PM. Research has also led to hypotheses on how the chemical and physical properties of PM could produce disease and models for estimating how much PM will travel from a source of potentially toxic particles to affected populations. Many questions remain, however,

particularly regarding the role long-term exposure to PM plays in development of chronic disease.

EPA's 2004 research findings support the association between exposure to PM and illness and death, especially for asthmatic children and other susceptible groups.⁶ Scientists have also found that PM_{2.5}, the component of PM smaller than 2.5 microns in diameter, easily penetrates most indoor environments, where people spend much of their time. In FY 2004, EPA estimated relationships between indoor concentrations and personal exposures to particles from both indoor and outdoor sources.⁷ EPA's Office of Research and Development (ORD) will be investigating new hypotheses on how PM causes disease and death, which can help the Agency and its partners develop targeted control strategies to reduce human exposure. In addition, EPA will accelerate research to help implement NAAQS by using modeling and monitoring data to determine which states and regions are out of compliance and developing new analytical tools that will help them comply with the NAAQS.

AIR TOXICS

The Clean Air Act includes provisions that address air toxics from mobile sources, major stationary sources, and area stationary sources. In FY 2004, EPA completed the first of a two-phase program for addressing large stationary sources of air toxics. The Agency issued 96 Maximum Achievable

Implementation of MACT standards has reduced air toxic emissions by 1.5 million tons per year.

Control Technology Standards covering 160 categories of industrial sources. The standards completed and issued have resulted in reductions of approximately 1.5 million tons

COMMUNITIES CREATE EARLY ACTION COMPACTS

Some communities recognized early-on that they would not meet the new, more stringent ozone standards and began to think creatively about how to improve their air more quickly and avoid designation. Thirty-three metropolitan areas collaborated with EPA, states, and environmental organizations to create Early Action Compacts. Under these innovative, voluntary agreements, partners accelerate planning and implementation efforts to reduce emissions in advance of Clean Air Act requirements. If all the requirements are met, EPA defers the effective date of the nonattainment designation. Early Action Compacts exemplify innovative thinking: focusing on results and using collaboration and incentives will provide approximately 10 million people with cleaner air, faster. (More information is available at <http://www.epa.gov/air/eac>.)



of toxic air emissions and will achieve even greater reductions when all sources come into compliance by 2007. The second phase of the air toxics program is risk-based: EPA will promote a community-based approach to addressing local problems, which the Agency expects will result in measurable reduced exposures to toxic chemicals, particulates, and asthma triggers.⁸

ACID RAIN

Long-term studies and measurements of acid rain deposition and surface water acidity demonstrate positive environmental outcomes from the Acid Rain Program. A comparison of average annual wet sulfate deposition for 1989–91 and

Annual wet sulfate deposition shows reductions of up to 30 percent for a large area of the eastern United States. Many lakes and streams are no longer acidic.

1999–2001 shows reductions of up to 30 percent over a large area of the eastern United States. *Response of Surface Water Chemistry to the Clean Air Act Amendments of 1990*, an ORD report released in 2003, indicates that in three of five geographic areas studied, one-quarter to one-third of lakes and streams previously affected by acid rain are no longer acidic, although they remain highly sensitive to future changes in deposition. Signs of recovery were not yet evident in the other two areas, suggesting that further

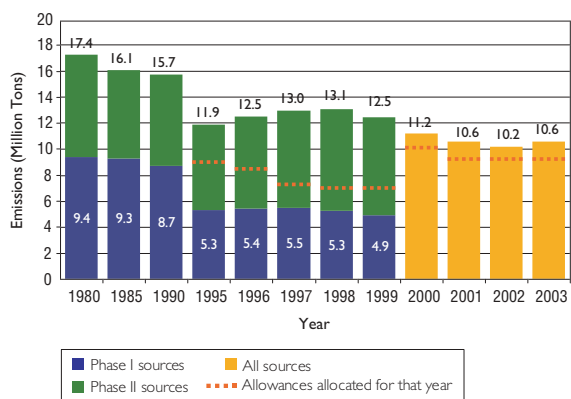
reductions, such as those presented in the proposed Clean Air Interstate Rule or the Clear Skies Act, will be needed for ecosystem recovery. For more information, see <http://www.epa.gov/ord/htm/CAAA-2002-report-2col-rev-4.pdf>.

Historically, environmental progress has been achieved largely by advances in environmental technologies—catalytic converters on cars and trucks, sulfur dioxide scrubbers, selective catalytic reduction for NO_x removal, and reformulated gasoline. Over the next 15 years, innovative technologies like fuel cells, hybrid vehicles, renewable fuels, and zero-emission power plants will enable EPA to reach aggressive goals that match or exceed the progress made in the past. By designing and promoting market-based strategies, such as cap-and-trade programs, EPA can foster innovation and provide incentives

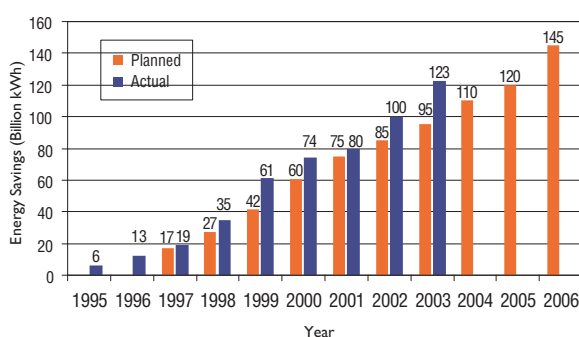
Innovative approaches and technologies will enable further environmental progress.

for developing and adopting efficient, high-performing technologies.

SO₂ Emission Reductions
under the Acid Rain Program



Energy Goals and Achievements for
Climate Protection Programs



GOAL I: CLEAN AIR AND GLOBAL CLIMATE CHANGE

Annual Performance Goals Met: **4**
 Annual Performance Goals Not Met: **1**
 Data Available After 11/5/04: **13**

FY2004 Obligations (in thousands):

EPA Total: \$10,155,381
 Goal I: \$923,074
 Goal I Share of Total: 9.1%

FY2004 Costs (in thousands):

EPA Total: \$8,837,375
 Goal I: \$942,835
 Goal I Share of Total: 10.7%

Note: In the FY 2005 Annual Performance Plan and Congressional Justification, EPA's Office of Air and Radiation (OAR) corrected the baseline for the criteria pollutants (1-hour ozone, PM₁₀, CO, SO₂ and Pb) correcting the display of prior year targets and actuals for the NAAQS performance goals. Previously, OAR had included as its baseline only the 1990 population for areas designated as non-attainment; all improvements were against that baseline. OAR has now corrected this baseline to include the population for areas that were designated as attainment or unclassified. This correction gives a truer picture of the baseline population and the progress towards EPA's strategic goal. This correction does not change the status of whether EPA met or did not meet the goal or measure for the criteria pollutants for years prior to 2004.

STRATEGIC OBJECTIVE: THROUGH 2010, WORKING WITH PARTNERS, PROTECT HUMAN HEALTH AND THE ENVIRONMENT BY ATTAINING AND MAINTAINING HEALTH-BASED AIR-QUALITY STANDARDS AND REDUCING THE RISK FROM TOXIC AIR POLLUTANTS. FY 2004 Cost (in thousands): \$596,826 (63.3% of FY 2004 Goal I Total Costs)

Progress Toward Strategic Objective: EPA, working with its state, local, and tribal partners as well as industry, small businesses, and other federal agencies, continues to make steady progress in attaining and maintaining health-based air quality standards and reducing the risk from toxic air pollutants. EPA's Clean Air Nonroad Diesel Rule, promulgated as a final rule in May 2004, requires stringent pollution controls on diesel engines used in industries such as construction, agriculture and mining, and reduces the sulfur content of diesel fuel by 99%. The suite of Clean Air Rules of 2004 (Clean Air Ozone Rules, Clean Air Fine Particle Rules, Clean Air Interstate Rule, Clean Air Mercury Rule as well as the non-road diesel program), combined with other existing programs, including the Tier 2 clean vehicles and gasoline sulfur standards for cars and light trucks, the NO_x SIP Call rule to reduce interstate ozone and the Clean Diesel program for new trucks and buses, will bring more than half of counties now monitoring nonattainment into attainment with the fine particle and ozone standards. EPA signed the Utility Mercury Reductions proposal which would permanently cap emissions from coal-fired power plants and provide companies with flexibility to achieve early reductions from mercury. EPA promulgated the last of the maximum achievable technology (MACT) standards for major stationary sources, which once fully implemented will decrease air toxics emissions by 1.7 million tons per year. EPA continues to shift the emphasis of its air toxics program to a risk-based approach and is continuing to analyze the various source categories promulgated under MACT for remaining residual risk. EPA has begun to focus increasingly on community-specific air toxics problems, working with partners and stakeholders to identify and address the risk reductions that matter most to local citizens.

APG I.1 Reduce Ozone and Ozone Precursors		Planned	Actual
FY 2004	The number of people living in areas with monitored ambient ozone concentrations below the NAAQS for the 1-hour ozone standard will increase by 4% (relative to 2003) for a cumulative total of 47% (relative to 1992).		
	<i>Performance Measures:</i>		
	—Cumulative percent increase in the number of people who live in areas with ambient 1-hour ozone concentrations below the level of the NAAQS as compared to 1992.	47%	Data avail 2005
	—Cumulative percent increase in the number of areas with ambient 1-hour ozone concentrations below the level of the NAAQS as compared to 1992.	55%	Data avail 2005

APG 1.1 Reduce Ozone and Ozone Precursors (continued)		Planned	Actual
FY 2004	<ul style="list-style-type: none"> —Total number of people who live in areas designated to attainment of the Clean Air Standards for ozone. —Areas newly designated to attainment for the ozone standards. —Additional people living in newly designated areas with demonstrated attainment of ozone standards. —Tons of VOCs Reduced from Mobile Sources. —Tons of NO_x Reduced from Mobile Sources. 	167.3 M 5 areas 5.8 M 2.0 M 1.65 M	165.4M 3 areas 3.9 M 2.0 M 1.65 M
FY 2003	<p>Maintain healthy air quality for approximately 161.5 million people living in monitored areas attaining the ozone standard; certify 7 areas of the remaining 54 nonattainment areas. Attained the 1-hour NAAQS for ozone, thus increasing the number of people living in areas with healthy air by 5.8 million. Goal Met.</p> <p>Performance Measures:</p> <ul style="list-style-type: none"> —Cumulative percent increase in the number of people who live in areas with ambient 1-hour ozone concentrations below the level of the NAAQS as compared to 1992. —Cumulative percent increase in the number of areas with ambient 1-hour ozone concentrations below the level of the NAAQS as compared to 1992. —Tons of VOCs Reduced from Mobile Sources. —Tons of NO_x Reduced from Mobile Sources. 	19% 31% 1.9 M 1.4 M	42% 93% 1.9 M 1.4 M
FY 2002	<p>Maintain healthy air quality for approximately 155.7 million people living in monitored areas attaining the ozone standard; certify 3 areas of the remaining 55 nonattainment areas have attained the 1-hour NAAQS for ozone, thus increasing the number of people living in areas with healthy air by 3.6 million.</p> <p>Performance Measures:</p> <ul style="list-style-type: none"> —Cumulative percent increase in the number of people who live in areas with ambient 1-hour ozone concentrations below the level the NAAQS as compared to 1992. —Cumulative percent increase in the number of areas with ambient 1-hour ozone concentrations below the level of the NAAQS as compared to 1992. —Total number of people who live in areas designated to attainment of the Clean Air Standards for ozone. —Areas newly designated to attainment for ozone standard. —Additional people living in newly designated areas with demonstrated attainment of the ozone standard. —Tons of VOCs Reduced from Mobile Sources. —Tons of NO_x Reduced from Mobile Sources. 	3 areas 1.8 M 1.3 M	37% 83% 155.7 M 2 areas 3.6 M 1.8 M 1.3 M
FY 2001	EPA maintained healthy air quality for 152 million people living in areas attaining the ozone standard, increased by 170 thousand the number of people living in areas with healthy air quality that have newly attained the standard by certifying two areas have attained the 1-hour standard.		

APG 1.1 Reduce Ozone and Ozone Precursors (continued)		Planned	Actual
FY 2001	<p>Performance Measures:</p> <ul style="list-style-type: none"> —Cumulative percent increase in the number of people who live in areas with ambient 1-hour ozone concentrations below the level of the NAAQS as compared to 1992. —Cumulative percent increase in the number of areas with ambient 1-hour ozone concentrations below the level the NAAQS as compared to 1992. —Total number of people who live in areas designated to attainment of the Clean Air Standards for ozone. —Areas newly designated to attainment for ozone standard. —Additional people living in newly designated areas with demonstrated attainment of the ozone standard. —Tons of VOCs Reduced from Mobile Sources. —Tons of NO_x Reduced from Mobile Sources. 		33% 80% 152 M 2 areas 170 K 1.7 M 1.2 M
<p>FY 2004 Result: EPA is not on track to meet this goal based on available data. EPA maintained healthy air quality for 165.4 million people living in 53 areas designated as attaining the 1-hour ozone standard (falling short of its goal by 1.9 million people) and certified that 3 (out of a target of 5) of the remaining 48 non-attainment areas have attained the 1-hour NAAQS for ozone, thereby increasing the number of people living in areas with healthy air by 3.9 million in lieu of the 5.8 million target. However, EPA will revoke the 1-hour standard in June 2005 to reflect that in April 2004, EPA made attainment designations for areas under the 8-hour standard. Areas are currently developing their clean air plans to meet the 8-hour standards.</p> <p>A description of the quality of data used to measure EPA's performance can be found in Appendix B, pages 20-21.</p> <p>FY 2003 Result Available in 2004: As reported in its FY 2003 report, EPA declared this goal not met. With this report, EPA is reporting on the data that was not yet available for the FY 2003 report EPA measured a cumulative increase of 42% of the number of people who live in areas with ambient 1-hour ozone concentrations below the level of the NAAQS and measured a cumulative increase of 93% in the number of areas with ambient 1-hour ozone concentrations below the level of the NAAQS as compared to 1992.</p>			

APG 1.2 Reduce CO, SO ₂ , NO ₂ , Lead (Pb)		Planned	Actual
FY 2004	<p>The number of people living in areas with monitored ambient CO, SO₂, NO₂, or Pb concentrations below the NAAQS for the standard will increase by 4% (relative to 2003) for a cumulative total of 53% (relative to 1992).</p> <p>Performance Measures:</p> <ul style="list-style-type: none"> —Cumulative percent increase in the number of people who live in areas with ambient CO, SO₂, NO₂, or Pb concentrations below the level the NAAQS as compared to 1992. —Cumulative percent increase in the number of areas with ambient CO, SO₂, NO₂, or Pb concentrations below the level of the NAAQS as compared to 1992. —Total number of people who live in areas designated to attainment of the Clean Air Standards for CO, SO₂, NO₂, or Pb. —Areas newly designated to attainment for CO, SO₂, NO₂, or Pb standards. —Additional people living in newly designated areas with demonstrated attainment of the CO, SO₂, NO₂, or Pb standards. —Tons of CO reduced from mobile sources. 		Data avail 2005 Data avail 2005 174 M 19 areas 6.2 M 12.6 M

APG 1.2 Reduce CO, SO ₂ , NO ₂ , Lead (Pb) (continued)		Planned	Actual
FY 2003	<p>Maintain healthy air quality for 167.8 million people living in monitored areas attaining the CO, SO₂, NO₂, or Pb; increase by 435 thousand the number of people living in areas with healthy air quality that have newly attained the standard.</p> <p>Performance Measures:</p> <ul style="list-style-type: none"> —Cumulative percent increase in the number of people who live in areas with ambient CO, SO₂, NO₂, or Pb concentrations below the level the NAAQS as compared to 1992. —Cumulative percent increase in the number of areas with ambient CO, SO₂, NO₂, or Pb concentrations below the level of the NAAQS as compared to 1992. —Total number of people who live in areas designated to attainment of the Clean Air Standards for CO, SO₂, NO₂, or Pb. —Areas newly designated to attainment for CO, SO₂, NO₂, or Pb standards. —Additional people living in newly designated areas with demonstrated attainment of the CO, SO₂, NO₂, or Pb standards. —Tons of CO reduced from mobile sources. 		<p>47%</p> <p>91%</p> <p>167.8 M</p> <p>5 areas</p> <p>435 K</p> <p>11.3 M</p>
FY 2002	<p>Maintain healthy air quality for 167 million people living in monitored areas attaining the CO, SO₂, NO₂, or Pb; increase by 16 million the number of people living in areas with healthy air quality that have newly attained the standard.</p> <p>Performance Measures:</p> <ul style="list-style-type: none"> —Cumulative percent increase in the number of people who live in areas with ambient CO, SO₂, NO₂, or Pb concentrations below the level the NAAQS as compared to 1992. —Cumulative percent increase in the number of areas with ambient CO, SO₂, NO₂, or Pb concentrations below the level of the NAAQS as compared to 1992. —Total number of people who live in areas designated to attainment of the Clean Air Standards for CO, SO₂, NO₂, or Pb. —Areas newly designated to attainment for CO, SO₂, NO₂, or Pb standards. —Additional people living in newly designated areas with demonstrated attainment of the CO, SO₂, NO₂, or Pb standards. —Tons of CO reduced from mobile sources. 		<p>47%</p> <p>87%</p> <p>167.4 M</p> <p>10 areas</p> <p>12 areas</p> <p>16.5 M</p> <p>11.0 M</p>
FY 2001	<p>Maintain healthy air quality for 151 million people living in monitored areas attaining the CO, SO₂, NO₂, or Pb; increase by 419 thousand the number of people living in areas with healthy air quality that have newly attained the standard.</p> <p>Performance Measures:</p> <ul style="list-style-type: none"> —Cumulative percent increase in the number of people who live in areas with ambient CO, SO₂, NO₂, or Pb concentrations below the level the NAAQS as compared to 1992. —Cumulative percent increase in the number of areas with ambient CO, SO₂, NO₂, or Pb concentrations below the level of the NAAQS as compared to 1992. 		<p>32%</p> <p>76%</p>

APG 1.2 Reduce CO, SO ₂ , NO ₂ , Lead (Pb) <i>(continued)</i>		Planned	Actual
FY 2001 <i>(continued)</i>	—Total number of people who live in areas designated to attainment of the Clean Air Standards for CO, SO ₂ , NO ₂ , or Pb.		151.0 M
	—Areas designated to attainment for CO, SO ₂ , NO ₂ , or Pb standards.	14 areas	9 areas
	—Additional people living in newly designated areas with demonstrated attainment of the CO, SO ₂ , NO ₂ , or Pb standards.		419 K
	—Tons of CO reduced from mobile sources.	11.0 M	11.0 M
<p>FY 2004 Result: Based on available data, EPA is not on track to meet its goal. EPA maintained healthy air quality for 173 million people living in 122 monitored areas attaining the CO, SO₂, NO₂, or Pb standards falling slightly short of its goal of 174 million. Out of the remaining 24 non-attainment areas, EPA certified 14 of its FY 2004 goal of 19. This increased the number of people living in areas with healthy air by 5.4M but missed the target of 6.2M.</p> <p>A description of the quality of data used to measure EPA's performance can be found in Appendix B, page 20.</p>			

APG 1.3 Reduce Particulate Matter		Planned	Actual
FY 2004	The number of people living in areas with monitored ambient PM concentrations below the NAAQS for the PM ₁₀ standard will increase by less than 1% (relative to 2003) for a cumulative total of 6% (relative to 1992).		
	<i>Performance Measures:</i>		
	—Cumulative percent increase in the number of people who live in areas with ambient PM ₁₀ concentrations below the level of the NAAQS as compared to 1992.	6%	Data avail 2005
	—Cumulative percent increase in the number of areas with ambient PM ₁₀ concentrations below the level of the NAAQS as compared to 1992.	40%	Data avail 2005
	—Total number of people who live in areas designated attainment of the Clean Air Standards for PM ₁₀ .	120 M	120.5 M
	—Additional people living in newly designated areas with demonstrated attainment of the PM ₁₀ standard.	380 K	126 K
	—Areas newly designated to attainment.	9 areas	6 areas
	—Percent of areas with improving ambient PM ₁₀ concentrations.	76%	Data avail 2005
	—Tons of PM ₁₀ Reduced from Mobile Sources.	18,100	18,100
	—Tons of PM _{2.5} Reduced from Mobile Sources.	13,500	13,500
FY 2003	Maintain healthy air quality for 120 million people living in monitored areas attaining the PM ₁₀ standards; increase by 252 thousand the number of people living in areas with healthy air quality that have newly attained the standard.		
	<i>Performance Measures:</i>		
	—Cumulative percent increase in the number of people who live in areas with ambient PM ₁₀ concentrations below the level of the NAAQS as compared to 1992.		6%
	—Cumulative percent increase in the number of areas with ambient PM ₁₀ concentrations below the level of the NAAQS as compared to 1992.		50%
	—Total number of people who live in areas designated to attainment of the Clean Air Standards for PM ₁₀ .		120.4 M

APG 1.3 Reduce Particulate Matter <i>(continued)</i>		Planned	Actual
FY 2003 <i>(continued)</i>	<ul style="list-style-type: none"> —Additional people living in newly designated areas with demonstrated attainment of the PM₁₀ standard. —Areas newly designated to attainment. —Tons of PM₁₀ Reduced from Mobile Sources. —Tons of PM_{2.5} Reduced from Mobile Sources. 	 8 areas 25,000 18,000	252 K 5 areas 25,000 18,000
FY 2002	<p>Maintain healthy air quality for 120 million people living in monitored areas attaining the PM₁₀ standards; increase by 2.7million the number of people living in areas with healthy air quality that have newly attained the standard.</p> <p>Performance Measures:</p> <ul style="list-style-type: none"> —Cumulative percent increase in the number of people who live in areas with ambient PM₁₀ concentrations below the level of the NAAQS as compared to 1992. —Cumulative percent increase in the number of areas with ambient PM₁₀ concentrations below the level of the NAAQS as compared to 1992. —Total number of people who live in areas designated to attainment of the Clean Air Standard for PM₁₀. —Additional people living in newly designated areas with demonstrated attainment of the PM₁₀ standard. —Areas newly designated to attainment for PM₁₀. —Tons of PM₁₀ Reduced from Mobile Sources. —Tons of PM_{2.5} Reduced from Mobile Sources. 	 6 areas 23,000 17,250	5% 40% 120 M 2.7 M 4 areas 23,000 17,250
FY 2001	<p>Maintain healthy air quality for 120 million people living in monitored areas attaining the PM₁₀ standards; increase by 2.7million the number of people living in areas with healthy air quality that have newly attained the standard.</p> <p>Performance Measures:</p> <ul style="list-style-type: none"> —Cumulative percent increase in the number of people who live in areas with ambient PM₁₀ concentrations below the level of the NAAQS as compared to 1992. —Cumulative percent increase in the number of areas with ambient PM₁₀ concentrations below the level of the NAAQS as compared to 1992. —Total number of people who live in areas designated to attainment of the Clean Air Standard for PM₁₀. —Additional people living in newly designated areas with demonstrated attainment of the PM₁₀ standard. —Areas newly designated to attainment for PM₁₀. 	 5 areas	3% 32% 117.4 M 2.3 M 8 areas
<p>FY 2004 Result: Based on available data, EPA is not on track to meet its goal. EPA met its goal of maintaining healthy air quality for 120.5 million people living in 31 areas designated as attaining the PM₁₀ standard. However, EPA certified 6 areas (from the 9 areas) of the 54 remaining non-attainment areas have attained the NAAQS and increased the number of people living in areas with healthy air by 126,000 (not 380,000). While EPA missed the targets for both the number of areas designated and additional people living in healthy air, this is due in part to areas not meeting the procedural requirements for formal designations to attainment. Completion of the air quality monitoring data review, in 2005, will provide more information on percentage of people who live in areas and the number of areas that meet the PM₁₀ standard and thus allow EPA to have a more complete picture of air quality.</p>			

APG 1.3 Reduce Particulate Matter (continued)

(FY 2004 Result continued) A description of the quality of data used to measure EPA's performance can be found in Appendix B, page 20.

FY 2003 Result Available in FY 2004: As reported in its FY 2003 report, EPA declared this goal met. With this report, EPA is reporting on the data that was not yet available for the FY 2003 report. EPA missed the designation of attainment target but met the target that was the actual emission reduction. There was a cumulative increase of 6% in the number of people who live in areas with ambient PM₁₀ concentrations below the level the NAAQS as compared to 1992 and a 50% increase in the number of areas with ambient PM₁₀ concentrations below the level of the NAAQS as compared to 1992.

APG 1.4 Reduce SO₂ Emissions**Planned****Actual****FY 2004**

Maintain or increase annual SO₂ emission reduction of approximately 5 million tons from the 1980 baseline. Keep annual emissions below level authorized by allowance holdings and make progress toward achievement of Year 2010 SO₂ emissions cap for utilities.

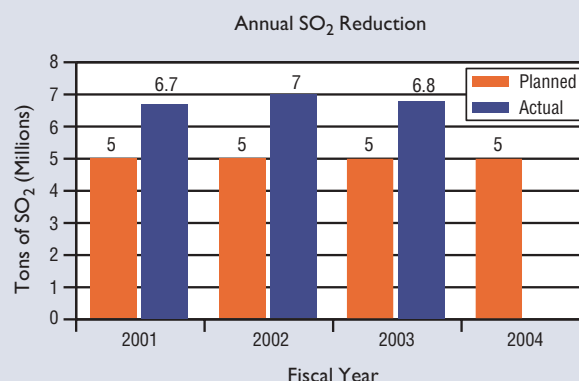
5 M

Data
avail 2005

FY 2004 Result: Although data is not available for FY 2004, EPA has continued to meet and exceed this goal for the previous 3 years. FY 2004 data will be available in the last quarter of 2005 to verify that annual emissions reduction of approximately 5 million tons from utility sources were maintained or increased during 2004.

A description of the quality of data used to measure EPA's performance can be found in Appendix B, page 21.

FY 2003 Result Available in FY 2004: This goal was met. SO₂ emissions were reduced by approximately 39% from the 1980 level of 17.4 million tons, approaching the 50% reduction goal from 1980 level by 2010. Unit-level SO₂ emissions data for all sources covered by the Acid Rain Program are available on EPA's website at <http://www.epa.gov/airmarkets>.

**APG 1.5 Increase Tribal Air Capacity****Planned****Actual****FY 2004**

Increase the number of tribes monitoring air quality for ozone and/or PM from 42 to 45 and increase the percentage of tribes monitoring clean air for ozone from 64% to 67% and PM from 71% to 72%. **Goal Met.**

Performance Measures:

—Percent of Tribes with Tribal Lands Monitoring for ozone and/or Particulate Matter.	13%	18%
—Percent of Monitoring Tribes Monitoring Clean Air for ozone.	67%	81%
—Percent of Monitoring Tribes Monitoring Clean Air for PM.	72%	93%
—Number of Tribes implementing air programs.	45 tribes	74 tribes

FY 2003

Increase the number of tribes monitoring air quality for ozone and/or PM from 37 to 42 and increase the percentage of tribes monitoring clean air for ozone from 62% to 64% and PM from 68% to 71%. **Goal Not Met.**

42 tribes
64 %
71 %

39 tribes
66%
68%

APG 1.5 Increase Tribal Air Capacity *(continued)*

FY 2004 Results: EPA significantly exceeded this goal by almost doubling the number of tribes working to implement air programs, in cooperation with state and local air managers. In FY 2004, 17 out of 21 tribes monitored below the NAAQS for ozone. Fifty-six out of 60 tribes monitored below the NAAQS for PM. The Agency will continue to work with tribes to increase the number of tribes that monitor for air quality.

A description of the quality of data used to measure EPA's performance can be found in Appendix B, page 21.

APG 1.6 Reduce Air Toxic Emissions		Planned	Actual
FY 2004	<p>Air toxics emissions nationwide from stationary and mobile sources combined will be reduced by an additional 2% of the updated 1993 baseline of 6 million tons for a cumulative reduction of 37%.</p> <p>Performance Measures:</p> <ul style="list-style-type: none"> —Combined Stationary and Mobile Source Reductions in Air Toxics Emissions. —Mobile Source Air Toxics Emissions Reduced. —Stationary Source Air Toxics Emissions Reduced. —Area and All other Air Toxics Emissions Reduced. 	<p>2%</p> <p>.71 tons</p> <p>1.59 tons</p> <p>+1.13 tons</p>	Data avail 2012
FY 2003	<p>Air toxics emissions nationwide from stationary and mobile sources combined will be reduced by an additional 1% of the updated 1993 baseline of 6 million tons for a cumulative reduction of 35%.</p> <p>Performance Measures:</p> <ul style="list-style-type: none"> —Combined Stationary and Mobile Source Reductions in Air Toxics Emissions. —Mobile Source Air Toxics Emissions Reduced. —Stationary Source Air Toxics Emissions Reduced. —Area and All other Air Toxics Emissions Reduced. 	<p>1%</p> <p>.68 tons</p> <p>1.57 tons</p> <p>+1.12 tons</p>	Data avail 2009
FY 2002	<p>Air toxics emissions nationwide from stationary and mobile sources combined will be reduced by 5% from 2001 (for a cumulative reduction of 40% from the 1993 level of 4.3 million tons per year.)</p> <p>Performance Measures:</p> <ul style="list-style-type: none"> —Combined Stationary and Mobile Source Reductions in Air Toxics Emissions. —Mobile Source Air Toxics Emissions Reduced. —Stationary Source Air Toxics Emissions Reduced. —Area and All other Air Toxics Emissions Reduced. 	<p>5%</p>	Data avail 2005
FY 2001	<p>Air toxics emissions nationwide from stationary and mobile sources combined will be reduced by 5% from 2000 (for a cumulative reduction of 35% from the 1993 level of 4.3 million tons per year.)</p> <p>Performance Measures:</p> <ul style="list-style-type: none"> —Combined Stationary and Mobile Source Reductions in Air Toxics Emissions. —Mobile Source Air Toxics Emissions Reduced. —Stationary Source Air Toxics Emissions Reduced. —Area and All other Air Toxics Emissions Reduced. 	<p>5%</p>	Data avail 2005

APG 1.6 Reduce Air Toxic Emissions <i>(continued)</i>		Planned	Actual
FY 2000	<p>Air toxics emissions nationwide from stationary and mobile sources combined will be reduced by 3% from 1999 (for a cumulative reduction of 30% from the 1993 level of 4.3 million tons per year.)</p> <p>Performance Measures:</p> <ul style="list-style-type: none"> —Combined Stationary and Mobile Source Reductions in Air Toxics Emissions. —Mobile Source Air Toxics Emissions Reduced. —Stationary Source Air Toxics Emissions Reduced. —Area and All other Air Toxics Emissions Reduced. 	3%	Data avail 2005
FY 1999	<p>Reduce air toxic emissions by 12% in FY 1999, resulting in cumulative reduction of 25% from 1993 levels.</p> <p>Performance Measures:</p> <ul style="list-style-type: none"> —Combined Stationary and Mobile Source Reductions in Air Toxics Emissions. —Mobile Source Air Toxics Emissions Reduced. —Stationary Source Air Toxics Emissions Reduced. —Area and All other Air Toxics Emissions Reduced. 	12%	15% 1.1 tons 1.4 tons +.4 tons
<p>FY 2004 Result: The NTI (National Toxics Inventory) and NEI (National Emissions Inventory) are scheduled to be completed every 3 years. The Agency is currently working on updating the NEI and expects to have FY 2004 results in the last quarter of 2012; FY 2003 results in the last quarter of 2009; and FY 2000, 2001, and 2002 results in the last quarter of FY 2005.</p> <p>A description of the quality of data used to measure EPA's performance can be found in Appendix B, pages 20-21.</p> <p>FY 1999 Result Available in FY 2004: EPA exceeded its goal for FY 1999 air toxics emissions reductions. FY 1999 is from the 1999 NEI completed in the fall of 2003.</p>			

APG 1.7 Reduce Exposure to Unhealthy Ozone Levels—8 hour		Planned	Actual
FY 2004	<p>The number of people living in areas with monitored ambient ozone concentrations below NAAQS for the 8-hour standard will increase by 4% (relative to 2003) for a cumulative total 7% (relative to 2001).</p> <p>Performance Measures:</p> <ul style="list-style-type: none"> —Cumulative Percent Increase in the number of people who live in areas with ambient 8-hour concentrations below the level of the NAAQS as compared to 2001. —Cumulative Percent Increase in the number of areas with ambient 8-hour concentrations below the level of the NAAQS as compared to 2001. 	<1 <1	Data avail 2005 Data avail 2005
<p>FY 2004 Result: EPA designated the attainment status in FY 2004 for areas meeting the 8-hr ozone standard, thereby establishing the baseline to monitor progress. Monitoring data for FY 2004 will be available in Summer of 2005.</p> <p>A description of the quality of data used to measure EPA's performance can be found in Appendix B, page 20.</p>			

APG 1.8 Reduce Exposure to Unhealthy PM Levels—PM _{2.5}		Planned	Actual
FY 2004	<p>The number of people living in areas with monitored ambient PM_{2.5} concentrations below NAAQS will increase by less than 1% (relative to 2003) for a cumulative total of less than 1% (relative to 2001).</p> <p><i>Performance Measures:</i></p> <ul style="list-style-type: none"> —Cumulative Percent Increase in the number of people who live in areas with ambient PM_{2.5} concentrations below the level of the NAAQS as compared to 2001. —Cumulative Percent Increase in the number of areas with ambient PM_{2.5} concentrations below the level of the NAAQS as compared to 2001. 	<1	Data avail 2005
<p>FY 2004 Result: EPA will designate attainment status for PM_{2.5} in FY 2005. This will establish the baseline to monitor progress. Monitoring data will be available in Summer of 2005.</p> <p>A description of the quality of data used to measure EPA's performance can be found in Appendix B, page 21.</p>			

APG 1.9 Acid Rain		Planned	Actual
FY 2004	Reduce total annual average sulfur deposition and ambient sulfate concentrations 25% from baseline. Reduce total annual average nitrogen deposition and ambient nitrate concentrations 5% from baseline.	25% 5%	Data avail 2005
FY 2003	Two million tons of NO _x from coal-fired utility sources will be reduced from levels that would have been emitted without implementation of Title IV of the CAA. Goal Met.	2 M	3.5M
<p>FY 2004 Result: FY 2004 data will be available in last quarter of 2005. The new annual Acid Rain measure was developed as a result of the OMB PART review of the program in FY 2005.</p> <p>A description of the quality of data used to measure EPA's performance can be found in Appendix B, page 22.</p> <p>FY 2003 Result Available in FY 2004: EPA met this goal in 2000 and maintained the reduction estimated at 3.5 M tons of NO_x in 2001, 2002, and 2003.</p>			

STRATEGIC OBJECTIVE: BY 2008, 22.6 MILLION MORE AMERICANS THAN IN 1994 WILL BE EXPERIENCING HEALTHIER INDOOR AIR IN HOMES, SCHOOLS, AND OFFICE BUILDINGS.⁹ FY 2004 Cost (in thousands): \$53,445 (5.7% of FY 2004 Goal 1 Total Costs)

Progress Toward Strategic Objective: EPA is on track toward achieving its 2008 strategic objective of healthier indoor air in homes, schools, and office buildings. EPA has been successful in leveraging the resources and credibility of organizations respected by the public to encourage individuals, decision-makers, industry, and others to take action to reduce health risks in indoor environments. For example, the Indoor Environments Partner Network has allowed EPA to successfully reach target audiences with messages about how to reduce public health risks posed by indoor air contaminants. Partner relationships are being expanded every year, and partners who have committed to long-term public health risk reduction goals are demonstrating good progress.

APG I.10 Healthier Indoor Air in Schools

Planned

Actual

FY 2004

1,575,000 students, faculty and staff will experience improved indoor air quality (IAQ) in their schools.

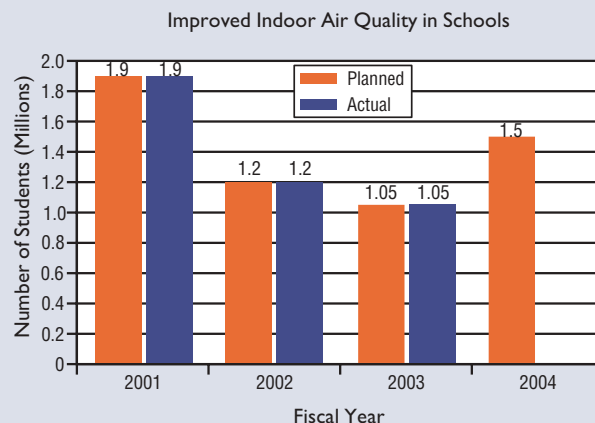
1.5 M

Data
avail 2005

FY 2004 Result: EPA gathers information on the number of schools and school systems/districts that receive Tools for Schools (TfS) kits and makes assumptions about adoption rates at each school. Based on preliminary data, the Agency expects to meet its goal by reaching 3,000 schools with an average of approximately 525 students/staff per school in adopting an indoor air quality management plans.

A description of the quality of data used to measure EPA's performance can be found in Appendix B, page 22.

FY 2003 Result Available in FY 2004: Based on its review and analysis of partner/grantees' reports and consulting with partners of EPA's Indoor Environment Network, EPA is confident that more than 1 million students and staff are experiencing improved IAQ in schools. In particular, EPA has seen an increase in IAQ planning progress and/or IAQ TfS implementation in 12 of the 15 largest U.S. school district representing more than 4,700 schools. This includes the school districts of Los Angeles, Miami, and Dallas.



APG I.11 Healthier Residential Indoor Air

Planned

Actual

FY 2004

834,400 additional people will be living in healthier residential indoor environments.

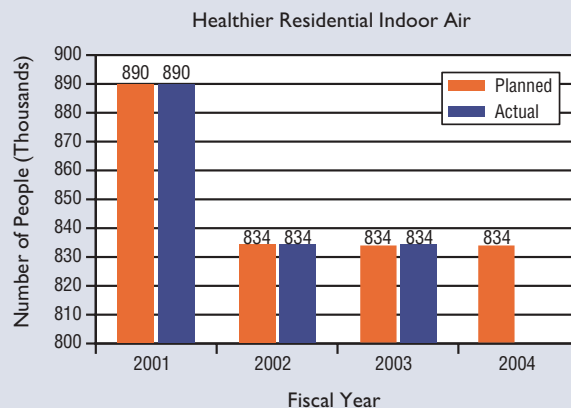
834,000

Data
avail 2005

FY 2004 Result: EPA is currently analyzing the information gathered through the survey instruments mentioned below. EPA expects to have FY 2004 results in FY 2005, and based on historical trends is likely to meet the goal. EPA gathers information from an annual National Association of Home Builders Survey. EPA also reviews the number of sales of radon fans, estimates the annual number of kids not exposed to ETS, and estimates the number of people made aware of EPA's outreach efforts via direct outreach, grant awards, public service announcements, and partnerships efforts.

A description of the quality of data used to measure EPA's performance can be found in Appendix B, page 22.

FY 2003 Result Available in FY 2004: For FY 2003, EPA estimates that it met its goal of approximately 834,400 additional people living in healthier residential indoor environments. This result is based upon information gathered from the Indoor Environment Partner Network which includes traditional partners and grantees, as well as analysis of various results data efforts including public service announcements and outreach, as well as information from the National Association of Home Builders and radon mitigation fan sales. This is a compound measure which includes results from the secondhand smoke, Asthma, and Radon Programs.



STRATEGIC OBJECTIVE: BY 2010, THROUGH WORLDWIDE ACTION, OZONE CONCENTRATIONS IN THE STRATOSPHERE WILL HAVE STOPPED DECLINING AND SLOWLY BEGUN THE PROCESS OF RECOVERY, AND THE RISK TO HUMAN HEALTH FROM OVEREXPOSURE TO ULTRAVIOLET RADIATION, PARTICULARLY AMONG SUSCEPTIBLE SUBPOPULATIONS, SUCH AS CHILDREN, WILL BE REDUCED. FY 2004 Cost (in thousands): \$14,874 (1.6% of FY 2004 Goal I Total Costs)

Progress Toward Strategic Objective: According to the United Nations Environment Programme's "Scientific Assessment of Ozone Depletion: 2002," a 4-year review of developments related to the ozone layer, "the total combined effective abundance

of ozone-depleting compounds continues to decline slowly from the peak that occurred in 1992-1994 (p. 1).” As a result of the continuing reduction in total atmospheric concentrations of ozone-depletors, models project varying rates of recovery in the global amount of total column ozone between now and 2050. The report also states that “measurements continue to confirm that decreases in ozone column amounts lead to increases in UV radiation.” UV radiation is a recognized risk factor for skin cancer and has been associated with other health effects, such as cataracts. Therefore, increases in total column ozone by 2010 should reduce the amount of UV radiation reaching the surface and the associated risk of developing health effects.

APG 1.12 Restrict Domestic Consumption of Class II HCFCs		Planned	Actual
FY 2004	<p>Restrict domestic consumption of class II hydrochlorofluorocarbons (HCFCs) below 9,906 ozone depletion potential-weighted metric tons (ODP MTs) and restrict domestic exempted production and import of newly produced class I chlorofluorocarbons (CFCs) and halons below 10,000 ODP MTs.</p> <p>Performance Measures:</p> <ul style="list-style-type: none"> —Domestic Consumption of Class II HCFCs. —Domestic Exempted Production and Import of newly produced class I HCFCs and halons. 	<p><9,906</p> <p><10,000</p>	<p>Data avail 2005</p>
FY 2003	<p>Restrict domestic consumption of class II HCFCs below 9,906 ODP MTs and restrict domestic exempted production and import of newly produced class I CFCs and halons below 10,000 ODP MTs.</p> <p>Performance Measures:</p> <ul style="list-style-type: none"> —Domestic Consumption of Class II HCFCs. —Newly produced Domestic Exempted Production and Import of class I HCFCs. 	<p><9,906</p> <p><10,000</p>	<p>Data avail 2005</p>
FY 2002	<p>Restrict domestic consumption of class II HCFCs below 15,240 ODP MTs and restrict domestic exempted production and import of newly produced class I CFCs and halons below 60,000 ODP MTs. Goal Met.</p> <p>Performance Measures:</p> <ul style="list-style-type: none"> —Domestic Consumption of Class II HCFCs. —Newly produced Domestic Exempted Production and Import of class I CFCs and halons. 	<p><15,240</p> <p><60,000</p>	<p>13,950</p> <p>2,347</p>
<p>FY 2004 Result: Data will be available in 2005. Progress on restricting domestic exempted consumption of Class I CFCs and halons is tracked by monitoring industry reports of compliance with EPA’s CAA phase out regulations and U.S. obligations under the Montreal Protocol. Data are provided by U.S. companies producing, importing, and exporting Ozone Depleting Substances.</p> <p>A description of the quality of data used to measure EPA’s performance can be found in Appendix B, page 23.</p> <p>FY 2002 Result Available in FY 2004: EPA met its FY 2002 goal, verifying that domestic consumption of Class II HCFCs was 13,950 metric tons and newly produced domestic exempted production and import of class I CFCs and halons was 2,347 metric tons, in compliance with EPA’s phaseout regulations.</p>			

STRATEGIC OBJECTIVE: THROUGH 2008, WORKING WITH PARTNERS, MINIMIZE UNNECESSARY RELEASES OF RADIATION AND BE PREPARED TO MINIMIZE IMPACTS TO HUMAN HEALTH AND THE ENVIRONMENT SHOULD UNWANTED RELEASES OCCUR. FY 2004 Cost (in thousands): \$39,053 (4.1% of FY 2004 Goal I Total Costs)

Progress Toward Strategic Objective: EPA continues on a steady path toward its 2008 strategic objective of minimizing unnecessary releases of radiation and minimizing impacts to human health and the environment. Highlights of that progress include improved management of "low-activity" radioactive waste; continued radiological emergency response exercises including the summer 2004 Ruby Slippers exercise; recertification of the Waste Isolation Plant and revised stakeholder approach to the WIPP; and the launching of RADINFO that provides basic information about facilities that the EPA regulates for radiation and radioactivity. EPA continues to meet or exceed its WIPP goal. While EPA did not meet its annual goal for updating the national radiation monitoring system, EPA has since revised the schedule and expects to meet the long-term goal while falling short of FYs 2004 and 2005 goals.

APG I.13 Ensure WIPP Safety

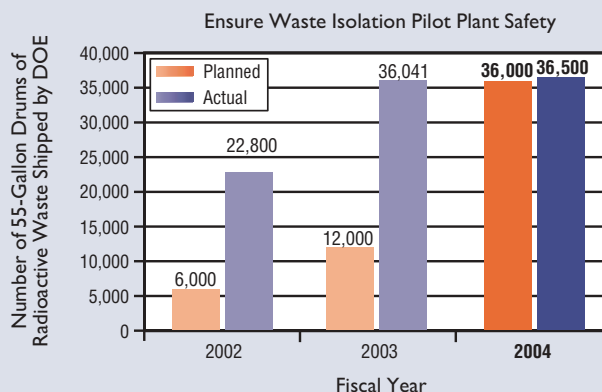
Planned

Actual

FY 2004 Certify that 36,000 55-gallon drums of radioactive waste (containing approximately 108,000 curies) shipped by the Department of Energy (DOE) to the Waste Isolation Pilot Plant are permanently disposed of safely and according to EPA standards. **Goal Met.**

FY 2004 Result: Through FY 2004, EPA has certified as properly disposed approximately 109,000 drums of transuranic waste equivalent to approximately 321,000 millicuries.

A description of the quality of data used to measure EPA's performance can be found in Appendix B, page 23.



APG I.14 Build National Radiation Monitoring System

Planned

Actual

FY 2004 EPA will purchase 60 state of the art radiation monitoring units thereby increasing EPA radiation monitoring capacity and population coverage from 37% of the contiguous U.S. population in FY 2002 to 50% in FY 2004. **Goal Not Met.**

FY 2004 Result: EPA did not meet its FY 2004 target of purchasing and deploying 60 state of the art radiation monitoring units. EPA awarded a contract for the fixed monitors in FY 2004 and expects shipment beginning in FY 2005. EPA expects to reach the overall FY 2008 strategic goal of purchasing and deploying 180 state of the art radiation monitors.

A description of the quality of data used to measure EPA's performance can be found in Appendix B, page 23.

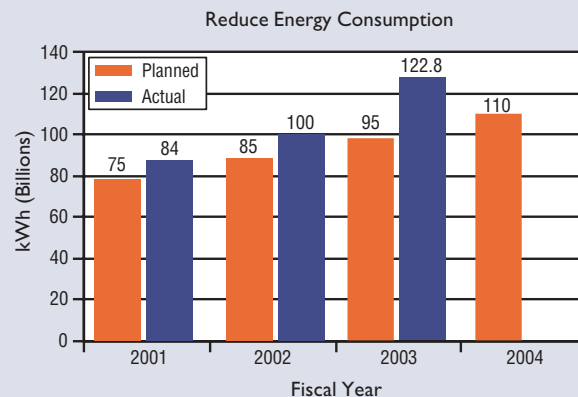
STRATEGIC OBJECTIVE: THROUGH EPA'S VOLUNTARY CLIMATE PROTECTION PROGRAMS, CONTRIBUTE 45 MILLION METRIC TONS OF CARBON EQUIVALENT (MMTCE) ANNUALLY TO THE PRESIDENT'S 18% GREENHOUSE GAS (GHG) INTENSITY IMPROVEMENT GOAL BY 2012. (AN ADDITIONAL 75 MMTCE TO RESULT FROM THE SUSTAINED GROWTH IN THE CLIMATE PROGRAMS ARE REFLECTED IN THE ADMINISTRATION'S BUSINESS-AS-USUAL PROJECTION FOR GHG INTENSITY IMPROVEMENT.¹⁰). FY 2004 Cost (in thousands): \$112,061 (11.9% of FY 2004 Goal 1 Total Costs)

Progress Toward Strategic Objective: Global climate change is a complex, long-term challenge that will require a sustained effort over many generations. For more than a decade, businesses and organizations have partnered with EPA through voluntary climate protection programs to pursue common sense approaches and addressing global climate change issues. Each year the environmental and economic benefits grow and most recent results (from 2003) show that the programs remain on track. As a result of the partnerships, 48 mmtce of ghg emissions were prevented in 2003, equivalent to the annual emissions from more than 31 million automobiles; 228,000 tons of nitrogen oxides were prevented in 2003; more than 40 mmtce per year in ghg emissions will be avoided during the next decade due to actions already taken by partners in the voluntary programs. Consumers and business have locked in investments in energy-efficient technologies exceeding \$16 billion.

APG 1.15 Reduce Greenhouse Gas (GHG) Emissions		Planned	Actual
FY 2004	<p>GHG emissions will be reduced from projected levels by approximately 81 mmtce per year through EPA partnerships with businesses, schools, state and local governments, and other organizations.</p> <p><i>Performance Measures:</i></p> <ul style="list-style-type: none"> —Annual GHG Reductions- All EPA Programs data available. —GHG Reductions from EPA's Buildings Sector Programs (ENERGY STAR). —GHG Reductions from EPA's Industrial Efficiency/Waste Management Programs. —GHG Reductions from EPA's Industrial Methane Outreach Programs. —GHG Reductions from EPA's Industrial HFC/PFC Programs. —GHG Reductions from EPA's Transportation Programs. —GHG Reductions from EPA's State and Local Programs. 		Data avail 2005
FY 2003	<p>GHG emissions will be reduced from projected levels by approximately 72.2 mmtce per year through EPA partnerships with businesses, schools, state and local governments, and other organizations.</p> <p><i>Performance Measures:</i></p> <ul style="list-style-type: none"> —Annual GHG Reductions—All EPA Programs. —GHG Reductions from EPA's Buildings Sector Programs (ENERGY STAR). —GHG Reductions from EPA's Industrial Efficiency/Waste Management Programs. —GHG Reductions from EPA's Industrial Methane Outreach Programs. —GHG Reductions from EPA's Industrial HFC/PFC Programs. —GHG Reductions from EPA's Transportation Programs. —GHG Reductions from EPA's State and Local Programs. 		

APG I.15 Reduce Greenhouse Gas (GHG) Emissions <i>(continued)</i>		Planned	Actual
FY 2002	GHG emissions will be reduced from projected levels by approximately 65.8 mmtce per year through EPA partnerships with businesses, schools, state and local governments, and other organizations thereby offsetting growth in GHG above 1990 levels by about 20%. Goal Met.	65.8 M	71 M
FY 2001	Same Goal, different target. Goal Met.	66 M	65 M
<p>FY 2004 Result: Final data will be available in mid-2005. Data collected by EPA's voluntary programs include partner reports on facility-specific improvements (e.g., space upgraded, kilowatt-hours reduced), national market data on shipment of efficient products, and engineering measurements of equipment power levels and usage patterns. The information collected is then converted to GHG emissions reduced.</p> <p>A description of the quality of data used to measure EPA's performance can be found in Appendix B, pages 23-24.</p> <p>FY 2003 Result Available in FY 2004: EPA met its goal for its Climate Change programs by reducing GHG emissions by 82.4 mmtce.</p>			

APG I.16 Reduce Energy Consumption		Planned	Actual
FY 2004	Reduce energy consumption from projected levels by more than 110 billion (B) kilowatt-hours (kWh), contributing to more than \$7.5 B in energy savings to consumers and businesses.	110 B	Data avail 2005
<p>FY 2004 Result: The information collected is then converted to energy and related cost savings. Final data will be available in the summer of 2005. Data collected by EPA's voluntary programs include partner reports on facility-specific improvements (e.g. space upgraded, kilowatt-hours reduced), national market data on shipment of efficient products, and engineering measurements of equipment power levels and usage patterns.</p> <p>A description of the quality of data used to measure EPA's performance can be found in Appendix B, page 24.</p> <p>FY 2003 Result Available in FY 2004: Through the end of 2003, EPA's Climate Change Programs significantly exceed its goal by reducing energy use by 122.8 billion kWh. EPA estimates that from investments made due to EPA's technology deployment programs, businesses and consumers across the country will realize energy bill savings of more than \$85 billion through 2012 (net of investment in energy-efficient technologies).</p>			



STRATEGIC OBJECTIVE: THROUGH 2010, PROVIDE AND APPLY SOUND SCIENCE TO SUPPORT EPA'S GOAL OF CLEAN AIR BY CONDUCTING LEADING-EDGE RESEARCH AND DEVELOPING A BETTER UNDERSTANDING AND CHARACTERIZATION OF ENVIRONMENTAL OUTCOMES UNDER GOAL I. FY 2004 Cost (in thousands): \$126,576 (13.4% of FY 2004 Goal I Total Costs)

Progress Toward Strategic Objective: EPA is on track for meeting this objective. For FY 2004, EPA's Office of Research and Development (ORD) provided crucial information to support NAAQS on the effects of ambient particulate matter (PM) on potentially susceptible groups, such as children and the elderly. ORD also provided important information regarding how PM components may contribute to adverse health outcomes, ultimately allowing EPA to regulate PM based on its components, as well as its mass (PM₁₀ or PM_{2.5}), in the future. Specifically, an assessment of the toxicity of different sizes of coal fly ash shows that coarse particles do not cause pulmonary inflammation while fine and, to a larger extent, ultrafine particles

do." EPA is also making progress in assessing the potential health effects of long-term exposure to PM, PM constituents, and co-pollutants, including providing an estimate of the relationships between indoor concentrations and personal exposures to particles from indoor and outdoor sources. The National Research Council, in a recent review of the PM research program, concluded that scientific uncertainty in this area has been greatly reduced in the past several years, and the evidence gained is already being used in decisions that will continue to be made even with the remaining uncertainties.

APG 1.17 Clean Automotive Technology		Planned	Actual
FY 2004	Transfer hybrid powertrain components, originally developed for passenger car applications, to meet size, performance, durability, and towing requirements of Sport utility vehicle and urban delivery vehicle applications with an average fuel economy improvement of 25% over the baseline. Goal Met.		
	<i>Performance Measure:</i>		
	Fuel Economy of typical SUV with EPA-developed hybrid technology over EPA driving cycles tested.	25.2	25.2
<p>FY 2004 Result: The average fuel economy of the typical SUV with EPA-developed hybrid technology represents a 25% increase over the baseline of 20.2 mpg.</p> <p>A description of the quality of data used to measure EPA's performance can be found in Appendix B, pages 24-25.</p>			

APG 1.18 PM Effects Research		Planned	Actual
FY 2004	Provide reports to OAR and the scientific community that examine the health effects of high levels of air pollutants, especially particulate matter in potentially susceptible populations so that PM standards protect human health to the maximum extent possible. Goal Met.		
	<i>Performance Measures:</i>		
	—Report on the chronic respiratory health effects in children of intra-urban gradients of particulate matter and co-pollutants in El Paso, TX.	1 report	1 report
	—Report on epidemiologic studies examining acute cardiac and respiratory effects in the elderly and children exposed to PM and co-pollutants	1 report	1 report
<p>FY 2004 Result: EPA's ORD provided critical information to the OAR to enhance risk estimates needed for promulgating the PM NAAQS and that focus on those who are at greatest risk. Specifically, the two reports completed in 2004 examine the health effects of increased levels of PM on children and the elderly. As noted by the National Research Council, the issue of susceptibility and chronic health outcomes is of utmost importance. There is currently considerable concern that increased levels of PM may disproportionately affect certain susceptible groups, especially when exposures are long-term. One such group is children, especially those with pre-existing asthma and related cardiopulmonary diseases. For example, in a study of children with pre-existing asthma, increases in PM exposure were linked to increased likelihood of an asthma attack and having that attack last for more than 2 hours. Children living in areas of high pollution such as on the U.S.-Mexico border are particularly at risk due to economic factors as well as exposure. The El Paso Children's Health Study examined ambient exposures to motor vehicle emissions and their effect on the prevalence of allergies and asthma among children. Preliminary findings from the study indicate that the duration of El Paso residence is associated with an increased prevalence of allergic sensitization in children, suggesting that environmental exposures in El Paso may be responsible, independent of other risk factors. The elderly with chronic lung disease comprise another susceptible group who may be more acutely affected. In two studies of elderly populations across the U.S., researchers found that a daily increase in PM concentration was associated with decreased heart rate variability, a health endpoint linked to higher mortality risk. This association was documented among health subjects and those with coronary heart disease.</p> <p>A description of the quality of data used to measure EPA's performance can be found in Appendix B, page 25.</p>			

ASSESSMENT OF IMPACTS OF FY 2004 PERFORMANCE ON FY 2005 ANNUAL PLAN:
THERE ARE NO CHANGES TO FY 2005 APGs BASED ON RESULTS OF FY 2004 PERFORMANCE.

NOTES

- 1 U.S. Environmental Protection Agency, Office of Air and Radiation and Office of Policy, Planning and Evaluation. 1997. *Benefits and Costs of the Clean Air Act, 1970 to 1990. Final Report to Congress*. EPA 410/R-97-002. Washington, DC. Available at: <http://www.epa.gov/oar/sect812/contsetc.pdf>
- 2 More information is available at: <http://www.epa.gov/ozonedesignations/ozonetrends.htm>
- 3 More protective health-based 8-hour ozone standards were implemented on April 15, 2004. Every area in the United States was designated as meeting or failing to meet these tighter standards. More information is available at: <http://www.epa.gov/ozonedesignations/>
- 4 The proposed Clean Air Interstate Rule, part of the Clean Air Rules of 2004, addresses pollution that crosses states boundaries. This rule will reduce emissions of SO₂ and NO_x in 29 eastern states and the District of Columbia in two phases. More information is available at: <http://www.epa.gov/interstateairquality/>
- 5 U.S. Environmental Protection Agency, Office of Air and Radiation. May 2004. *Clean Air Nonroad Diesel Rule Summary*. EPA 420-F-04-029. Washington, DC. Available at: <http://www.epa.gov/otaq/regs/nonroad/equip-hd/2004fr/420f04029.pdf>
- 6 Slaughter, J.C., et al. "Effects of Ambient Air Pollution on Symptom Severity and Medication Use in Children with Asthma." *Annals of Allergy, Asthma, and Immunology* 2003: 91346–53.
- 7 U.S. Environmental Protection Agency. 2004. Use of Indoor-Outdoor Sulfur Concentrations to Estimate the Infiltration Factor, Personal Exposure Factor, Penetration Coefficient, and Deposition Rate for Individual Homes. 2004.
- 8 Refer to *Sustained Progress in Addressing Management Issues* available at <http://www.epa.gov/ocfo/finstatement/2004ar/2004ar.htm>
- 9 The 1994 baseline is assumed to be zero for purposes of tracking the results of EPA indoor air programs because the number of Americans experiencing healthier indoor air prior to 1994 is unknown.
- 10 Overall, EPA's climate protection programs will prevent 185 mmtce annually by 2012, up from 65 mmtce in 2002. Of the additional 120 mmtce that will be prevented annually by 2012, 75 mmtce will result directly from the sustained growth in many of the climate programs and are reflected in the Administration's business-as-usual projection for ghg intensity improvement; 45 mmtce will contribute to the attainment of the President's 18% ghg intensity improvement goal. The strategic targets outline the path for preventing the 120 mmtce by 2012.
- 11 Gilmour MI, Oconnor S, Dick CJ, Miller CA, Linak WP. "Differential pulmonary inflammation and in vitro cytotoxicity of size fractionated fly ash particles from pulverized coal." *J Air Waste Manage Assoc* 2004; 54:1-10.

GOAL 2: Clean and Safe Water



Ensure drinking water is safe. Restore and maintain oceans, watersheds, and their aquatic ecosystems to protect human health, support economic and recreational activities, and provide healthy habitat for fish, plants, and wildlife.

Over the past 30 years, EPA and its federal, state, and tribal partners have made significant progress in protecting and restoring the nation's waters. Today, more Americans have safe, reliable, and affordable drinking water, and people can fish, swim, and travel safely in rivers that were once polluted. Challenges remain, however, and EPA is using a variety of strategies to address them. During FY 2004, EPA focused on developing and applying innovative, flexible approaches, such as trading and watershed-based permitting, that will promote efficiencies and yield improved results. The Agency also worked closely with states and tribes to improve data, so managers have the information they need to target actions to protect human health and aquatic ecosystems most effectively. New tools—such as the first complete list of beaches in coastal and Great Lakes States, an expanded

stream conditions across the United States—are laying the foundation for improved reporting and results in the coming years.



EPA works with states and tribes to improve data quality and develop new tools to improve reporting and results.

listing of waters where fish are safe to eat, and a new national study that uses comparable results to report

DRINKING WATER

EPA has established health-based drinking water standards for more than 90 contaminants.¹ To help drinking water systems implement the standards for contaminants posing the greatest risk to human health, EPA, states, tribes, and key stakeholders work together to provide water systems with extensive technical assistance and training. Over the past decade, the Agency and its partners have made significant progress in providing the public with drinking water that meets health-based standards.

While final FY 2004 drinking water data will not be available until January 2005, EPA expects to maintain these gains.

Given the many new standards and regulations which have been implemented since 1998 and continue to be implemented, however, EPA does not expect straight line increases in the number of community water systems that comply with all standards and regulations throughout the year, or in the corresponding percentages

of the populations they serve. For example, EPA and states project that the 2005 goal, 93 percent of the population is served by systems that meet all federal health-based standards all the time, will not be met. The Agency recognizes that many systems, especially small systems, will be struggling to implement the revised arsenic in drinking water standard and may not be in compliance with this standard for the entire year. Consequently, in FY 2004, EPA worked with states to determine which public water systems will need help in implementing the arsenic rule and the suite of microbial and disinfection/disinfectant byproducts rules that become effective in



FISH AND SHELLFISH

In FY 2004, states, territories, and tribes accelerated monitoring of fish tissue for mercury and other contaminants. As a result, as of December 2003, 47 new guidelines identifying specific water bodies from which the public can safely consume fish were added to those reported for 2002. Overall, 35 percent of total lake acres and 24 percent of river miles in the United States are now under consumption advisories; the increase in waters under advisory reflects

statewide mercury advisories issued by Montana and Washington and the addition of rivers to Wisconsin's statewide advisory. In addition, Hawaii issued a statewide advisory for its entire coastline, and the Cheyenne River Sioux Tribe issued an advisory on all of its tribal waters.³ Most recent advisories involved mercury, though U.S. emissions of mercury have declined significantly since 1990.⁴

EPA and the Food and Drug Administration issued the first joint federal fish advisory.

2005, 2006, and 2007. EPA estimates that, as a result of concerted technical assistance, training, and other capacity-building efforts, the gap between its annual goals and performance results will narrow in FY 2007, and the Agency will reach its FY 2008 goal.

Recently, verification of state data and other quality assurance analyses have called into question the accuracy of EPA's estimates of accomplishments in protecting drinking water. Efforts are underway to improve the data and the accuracy of EPA reports.²

In FY 2004, in the first such cooperative effort of its kind, EPA and the Food and Drug Administration issued a joint federal fish advisory. The agencies shared their data and expertise to develop three recommendations for reducing exposure to the harmful effects of mercury in fish. By following the recommendations, women of child-bearing age and children can safely enjoy the nutritional benefits of fish and shellfish while avoiding risks associated with methylmercury.⁵ During FY 2005, EPA will continue working with states, tribes, and health-care providers to disseminate this information to the public.

BEACHES AND RECREATIONAL WATERS

Each year, Americans take an estimated 910 million trips to beaches, where they spend approximately \$44 billion.⁶ During FY 2004, EPA took important steps to

EPA proposed water quality standards to protect public health and the quality of our beaches.

protect public health and the quality of the nation's beaches. To fulfill provisions of the Beaches Environmental Assessment and Coastal Health (BEACH) Act of 2000, EPA proposed health-based federal water quality standards for the 25 states and territories bordering Great Lakes or ocean waters that had not strengthened their standards.⁷ South Carolina, Maryland, and Delaware have already adopted these criteria. Ensuring that the public has current information on the safety of recreational waters is also a high priority for EPA. In April 2004, the Agency published the first "List of Beaches" on U.S. coastal and Great Lakes waters.⁸ This comprehensive list will be critical for making information accessible to the public and for tracking results over time. In addition, during FY 2004 for the fourth consecutive year, EPA provided grant funding to support coastal and Great Lakes states, tribes, and territories in monitoring beaches and notifying the public about beach conditions.⁹

WATER QUALITY

To protect water quality and restore impaired waters, EPA, states, and tribes employ a watershed approach, enabling them to improve collaboration and information sharing and leverage resources. To be successful, water programs must have the comprehensive, consistent data they need to manage wisely, and they must apply the tools provided them by the Clean Water Act efficiently and effectively to address pollution from point and nonpoint sources of pollution.

Data on the number of watersheds with 80 percent or more of assessed waters meeting water quality standards are reported every 2 years; EPA expects to complete the analysis of states' 2004 data by the end of FY 2005.

However, the Agency does not expect to meet its FY 2005 goal of 500 watersheds. Improved state monitoring and reporting is providing a better understanding of watershed condition, and EPA and states recognize that improving water quality on a watershed basis is challenging. The Agency and its partners are taking steps to improve results by increasing monitoring, encouraging watershed-based permitting and development of total maximum daily loads, increasing efficiency by identifying the most environmentally significant permits and setting permitting priorities from a watershed perspective, and helping states and tribes

LONG ISLAND SOUND NITROGEN LOADING REDUCED

A study administered by EPA Regions 1 and 2 identified nitrogen pollution that results in hypoxia (low levels of dissolved oxygen) as the highest priority for restoring the Long Island Sound. In response, Connecticut and New York are using flexible, innovative strategies to upgrade wastewater treatment plants to remove nitrogen. In 2004, Connecticut continued its nitrogen pollutant trading program, and New York finalized additional bubble permits. Both approaches set firm, enforceable targets for reducing nitrogen, but provide flexibility in achieving them. As a result of upgrades to date, wastewater treatment plant discharges have decreased nitrogen loading by 25 percent from baseline levels.



Photo: National Oceanic and Atmospheric Administration/Department of Commerce

COLLABORATION ON NPDES PERMITS PROTECTS CHESAPEAKE BAY

To control point-source pollution of the Chesapeake Bay watershed, EPA has led a collaborative effort to issue appropriate NPDES permits—consistent with Clean Water Act requirements and *Chesapeake 2000* goals—for discharges of nutrients to the Bay. After coordinating extensively with the seven states comprising the watershed, EPA issued a draft comprehensive strategy in July 2004. The Agency will finalize the strategy in FY 2005, following public review. The strategy has been the subject of considerable attention by the regulated community, environmental groups, and the press, and many have recognized EPA's leadership in moving this essential effort forward.

Photo: National Oceanic and Atmospheric Administration/Department of Commerce



improve the information available on water conditions and sources of impairment.

A cost-effective, scientifically sound system for obtaining national water quality data is crucial for detecting pollution problems, managing effectively, and assessing progress in improving water quality. During FY 2004, EPA continued to provide states with funding and technical support to enhance and expand monitoring. The Agency worked with states to conduct the Wadeable Streams Assessment, the first national study of the condition of wadeable streams throughout the United States. Survey results, available in 2005, will be comparable across all states in the contiguous United States, allowing state and regional biologists

to consider methods and select approaches appropriate for their areas. The Agency's investment in state monitoring programs not only provides the new data, but also will support future decision making under a wide range of federal and state programs.

FY 2004 marks the first year since 1992 that EPA is not under a consent decree for issuing effluent guidelines. During FY 2004 EPA published final effluent guidelines for meat and poultry, construction and development, and aquaculture.¹⁰ The meat and poultry processing effluent guideline will reduce pollutants produced by these operations by an estimated 30 million pounds per year.¹¹ In addition, new regulations that EPA issued in 2004 for large power producers will protect more than 200 million pounds of aquatic organisms annually from death or injury from cooling tower intake structures.¹² The Agency also published the 2004 *Effluent Guidelines Program Plan*, which will direct the effluent guidelines program over the next 2 years.¹³ During FY 2004, National Pollution Discharge Elimination System (NPDES) permits implementing effluent guidelines prevented the discharge of approximately 136 million pounds of pollutants into the nation's waters, for a cumulative total of 2.3 billion pounds reduced since 1999.¹⁴ EPA expects the reduction in pollutant loadings to increase as the Agency continues to implement the revised Concentrated Animal Feeding Operation regulation and to focus on the most environmentally significant permits. EPA's collaboration with the U.S. Department of Agriculture and the Association of State and Interstate Water Pollution Control Administrators is key to achieving NPDES program goals.

New effluent guidelines will reduce pollutants discharged from meat and poultry processing operations by an estimated 30 million pounds per year.

Throughout FY 2004, EPA promoted innovative approaches to streamline permitting and other administrative processes and improve results. Under the Permitting for Environmental Results (PER) initiative, for example, EPA and its partners identify the most environmentally significant permits in and among watersheds and set permit priorities accordingly. Now in its second year, PER is improving the integrity of the process for issuing permits and, more importantly, is providing an approach to focus on priority permits that will achieve the greatest environmental benefit and make the most of valuable resources. To further watershed-based permitting, in FY 2004 EPA issued the Watershed-Based NPDES Permitting Implementation Guide¹⁵ and began drafting complementary technical guidance that will facilitate watershed-based permitting.¹⁶

EPA is implementing a strategy for sustainable infrastructure that will enhance the operating efficiency of water and wastewater systems. The strategy is based on four related components: better asset management, full-cost pricing, efficient water use, and watershed-based management. Employing these sustainable management techniques can prolong the lives of existing utility systems and provide clean water at reduced costs.

EPA is also promoting an Environmental Management System (EMS) approach to help drinking water and wastewater utilities operate more efficiently to reduce adverse impacts on the environment. EMS practices enable an operation to evaluate its impact on the environment and

reduce harmful effects by increasing energy efficiency and conserving resources. In FY 2004, collaborating with others, EPA produced two guides: *Achieving Environmental Excellence: An Environmental Management Systems Handbook for Wastewater Utilities*¹⁷ and *Continual Improvement in Utility Management: A Framework for Integration*.¹⁸ These guides provide practical step-by-step information on developing a high-quality EMS, advice on integrating systems to continuously improve operations, and case studies of successful systems.

Finally, EPA's research programs in FY 2004 continued to supply the information needed to set and implement drinking water and water quality standards. Researchers explored the performance and cost of commercially ready arsenic treatment technologies for small water systems and provided information on managing residuals from arsenic treatment, determining the effects of the distribution system on treated water, and optimizing treatment processes. To support the Wadeable Streams Assessment, EPA also evaluated bioassessment methods and tools used to assess streams and rivers in New England.

SCHUYLKILL ACTION NETWORK PROTECTS WATER QUALITY

The Schuylkill Action Network, one of EPA's Targeted Watershed Initiative grant recipients for FY 2004, is accelerating source water and watershed protection in the 130-mile Schuylkill River, a drinking water source for over 1.5 million people in the Philadelphia area. Organized by EPA, the City of Philadelphia Water Department, and the Pennsylvania Department of Environmental Protection, the Network is working with more than 50 public and private organizations to address acid mine drainage, agricultural runoff, storm water runoff, untreated sewage discharges, and combined sewer overflows that threaten water quality. The Network has secured funding for community sewer systems, implemented a storm water demonstration project in the Wissahickon watershed, and diverted stream flow from an abandoned mine tunnel that was discharging metals to the river.



GOAL 2: CLEAN AND SAFE WATER

Annual Performance Goals Met:	7
Annual Performance Goals Not Met:	3
Data Available After 11/5/04:	3

FY2004 Obligations (in thousands):

EPA Total:	\$10,155,381
Goal 2:	\$3,840,600
Goal 2 Share of Total:	37.8%

FY2004 Costs (in thousands):

EPA Total:	\$8,837,375
Goal 2:	\$4,012,619
Goal 2 Share of Total:	45.4%

STRATEGIC OBJECTIVE: PROTECT HUMAN HEALTH BY REDUCING EXPOSURE TO CONTAMINANTS IN DRINKING WATER (INCLUDING PROTECTING SOURCE WATERS), IN FISH AND SHELLFISH, AND IN RECREATIONAL WATERS. FY 2004 Cost (in thousands): \$1,313,748 (32.8% of FY 2004 Goal 2 Total Costs)

Progress Toward Strategic Objective: In collaboration with states, tribes, and local governments, EPA is making steady progress in protecting human health by reducing contaminants in drinking water, in fish and shellfish, and in recreational waters. Although final FY 2004 drinking water data will not be available until January 2005, EPA expects that the gains made over the past decade will be maintained. Through concerted technical assistance and training, as well as other capacity development activities, we anticipate that the gap between the planned targets and actual achievements will narrow in FY 2005 and EPA will achieve the 2008 drinking water protection goal.

States, territories, and tribes are increasing monitoring activities of fish tissue for mercury and are communicating this critical information to the consuming public, and making progress toward meeting the 2008 goal. EPA also continues to provide the public with information about the quality of recreational waters and anticipates resolving the technical difficulties with eBeaches in FY 2005.

APG 2.1 Source Water Protection		Planned	Actual
FY 2004	Advance states' efforts with community water systems to protect their surface and ground water resources that are sources of drinking water supplies. Goal Met. <i>Performance Measure:</i> Number of community water systems and percent of population served by those CWSs that are implementing source water protection programs.	7,500 25%	13,891 42%
FY 2003	39,000 community water systems (representing 75% of the nation's service population) will have completed source water assessments and 2,600 of these (representing 10% of the nation's service population) will be implementing source water protection programs. Goal Met.	2,600 10%	6,570 25%
<p>FY 2004 Result: The states and EPA exceeded the goal, resulting in more community water systems (CWSs) implementing best management practices to address potential sources of contamination and further protect drinking water supplies. These source water assessments, authorized in the 1996 Amendments to the Safe Drinking Water Act to be conducted by the states, consists of six steps: (1) delineating the water supply, (2) inventorying actual and potential sources of contamination, (3) determining the susceptibility of potential sources, (4) informing the public, (5) developing a management plan for high risk sources of contamination, and (6) developing a contingency plan for alternative drinking water supplies in the event of wide-spread contamination. States continue to assess and identify potential sources of contamination that could endanger or contaminate sources of drinking water supplied by the nation's 53,000+ CWSs. Additional information on the Source Water Program is available at http://www.epa.gov/safewater/protect/assessment.html.</p> <p>A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 25.</p> <p>FY 2003 Result Available in FY 2004: Data for 2003 was incomplete; not all states reported by January 2004. EPA ensured that the data collection process for 2004 reporting was corrected.</p>			

APG 2.2 Safe Drinking Water		Planned	Actual
FY 2004	Population served by community water systems will receive drinking water meeting health-based standards promulgated in 1998.	85%	Data avail 2005
FY 2003	Same goal. Goal Met.	85%	96%

FY 2004 Result: To protect the nation's public health through safe drinking water, health-based standards for both chemical and microbial contaminants must be implemented by all 53,000+ community water systems. Pertinent rules for this measure include the Filter/Backwash Rule, Stage 1 Disinfections Byproducts Rule, and the Surface Water Treatment Rule (LTI SWTR), which were promulgated in or after 1998. At this time, data collection is still in progress. Additional information on the health standards and regulations for drinking water is available at <http://www.epa.gov/safewater/standards.html>.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 26.

FY 2003 Result Available in FY 2004: Data reported by states to EPA to date show that the percentage of the population served by community water systems which meet all health-based drinking water standards increased from 79% in 1993 to 96% in 2003 which met drinking water standards promulgated in 1998 was 96% in 2003.

APG 2.3 Safe Drinking Water		Planned	Actual
FY 2004	Population served by community water systems will receive drinking water meeting all health-based standards, up from 83% in 1994.	92%	Data avail 2005

FY 2004 Result: All health-based standards and regulations that were promulgated prior to 1998 were in effect in 1994. The population supplied drinking water by community water systems that have had no health-based violations in that year is the indicator for ensuring safe drinking water. Data for this measure will be available in 2005. Additional information on standards and regulations for public drinking water systems can be found at: <http://www.epa.gov/safewater/standards.html>.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 26.

FY 2003 Result Available in FY 2004: Although the vast majority of the nation's community water systems supplied drinking water that met all health-based standards, some very large systems serving a large number of people (e.g., New York City and Puerto Rico) reported violations during the year. For example, even though the New York City system was out of compliance for just a few hours, it is reported as a violation for the entire year. As a result the goal was not achieved. The Agency is pursuing ways to account for these temporary noncompliance events to more comprehensively and accurately reflect the public health benefits over the entire year.

Population Served by Community Water Systems Will Receive Drinking Water Meeting All Health-Based Standards, Up from 83% in 1994

Fiscal Year	Planned (%)	Actual (%)
1999	91	91
2000	91	91
2001	91	91
2002	94	91
2003	90	92
2004	92	92

APG 2.4 River/Lake Assessments for Fish Consumption		Planned	Actual
FY 2004	Reduce consumption of contaminated fish by increasing the information available to states, tribes, local governments, citizens, and decision-makers. Goal Met.		
Performance Measures:			
—Lake acres assessed for the need for fish advisories and compilation of state-issued fish consumption advisory methodologies (cumulative).		35%	35%
—River miles assessed for the need for fish consumption advisories and compilation state-issued fish consumption advisory methodologies (cumulative).		16%	24%

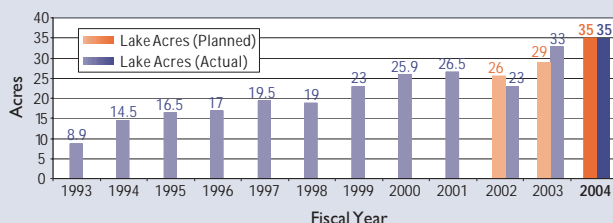
APG 2.4 River/Lake Assessments for Fish Consumption *(continued)*

FY 2004 Result: EPA met its goal, with the increase in river miles largely due to new statewide advisories in 3 states (Washington, Montana, and Wisconsin) due to mercury. These data are a compilation of fish advisory information provided to EPA by 50 states, 3 tribes, Puerto Rico, Guam, and American Samoa, and local governments. The information is voluntarily submitted to EPA in an effort to provide a central repository of fish consumption advisories information for the United States. Monitoring entities determine the scope and extent of monitoring and which waters should be placed under an advisory. Fish advisories are issued in order to inform the public about the recommended level of consumption of fish caught in local waters. The overall increase in waters needing advisories is primarily due to increased sampling of previously untested waters by states and tribes.

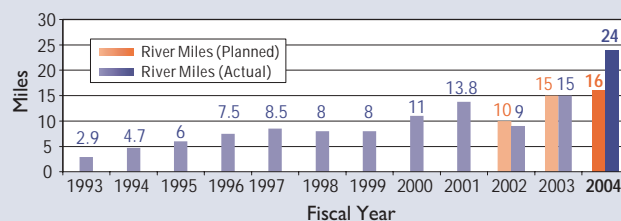
States are also increasingly using risk-based methodologies in determining the need for fish consumption advisories. In calendar year 2002, 45 states reported using risk-based methodologies, an increase from the 15 states that reported using these methodologies in 1999. EPA provides scientific and technical information to enhance state capacity, and develops and disseminates outreach materials for health care professionals in several languages. As a result of following these consumption advisories, the public should be protected from eating contaminated fish in quantities that would be harmful to their health.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 26.

Lake Acres Assessed for the Need for Fish Advisories and Compilation of State-Issued Fish Consumption Advisory Methodologies (cumulative)



River Miles Assessed for the Need for Fish Consumption Advisories and Compilation of State-Issued Fish Consumption Advisory Methodologies (cumulative)



APG 2.5 Increase Information on Beaches

Planned

Actual

FY 2004

Reduce human exposure to contaminated recreation waters by increasing the information available to the public and decision-makers. **Goal Not Met.**

Performance Measure:

Beaches for which monitoring and closure data are available to the public at <http://www.epa.gov/OST/beaches/> (cumulative).

2,823

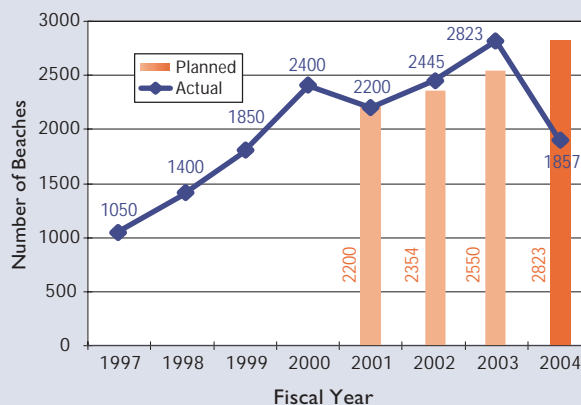
1,857

FY 2004 Result: Calendar year 2003 beach closure data were provided by 227 state agencies for 1,857 beaches. The target of beach closure data for 2,823 beaches was not met due to software compatibility issues with the old and new database systems. The new database system, eBeaches, will allow EPA to collect beach closure and pathogen data from states on a daily basis, a vast improvement over the previous system which reported beach closure information on a yearly basis. The 10 states that currently use STORET as a repository for monitoring data were able to report 2003 data for 1,857 beaches (closure data are available at <http://www.epa.gov/waterscience/beaches/>). EPA expects the system to be fully operational, allowing all states to report beach closure information, in January 2005.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 27.

Increase Information on Beaches

Reduce human exposure to contaminated recreation waters by increasing the information available to the public and decision-makers.



APG 2.6 Drinking Water Infrastructure (Homeland Security)		Planned	Actual
FY 2004	<p>Enhance homeland security by securing the nation's critical drinking water infrastructure. Goal Not Met.</p> <p><i>Performance Measures:</i></p> <ul style="list-style-type: none"> —Percent of population and number of CWSs serving more than 50,000 but less than 100,000 people have certified the completion of their vulnerability assessment and submitted a copy to EPA. 100%/435 100%/435 —Percent of population and number of CWSs serving more than 50,000 but less than 100,000 people have certified the completion of the preparation or revision of their emergency response plan. 100%/435 93%/405 —Percent of population and number of CWSs serving more than 3,300 but less than 50,000 people have certified the completion of their vulnerability assessment and submitted a copy to EPA. 100%/7,641 88%/6,788 		
FY2003	<p>Enhance public health protection by securing the nation's critical water infrastructures through support for counter-terrorism preparedness. Goal Met.</p> <p><i>Performance Measure:</i></p> <p>Percent of the population and the number of community water systems—serving 100,000 or more people—that have certified the completion of the preparation or revision of their emergency response plan. 100%/463 100%/463</p>		
<p>FY 2004 Result: EPA met its goal of having virtually all medium community water systems assure that their public water utilities have evaluated their susceptibility to potential threats and identified corrective actions to reduce or mitigate the risk of serious consequences from an intentional act. However, EPA missed its goal of having 100% of medium community water systems certify the completion of emergency response plans (ERP) within 6 months after submitting their vulnerability assessments, consistent with this Public Health Security and Bioterrorism Preparedness and Response Act (Bioterrorism Act) of 2002. Instead of taking an enforcement action against those systems that have not yet submitted their ERPs, the Agency is providing training and technical assistance to those systems making a concerted effort to complete their plans. Currently, EPA is providing on-the-ground technical assistance to those systems that have not yet submitted their ERPs. EPA missed its goal of having small systems certify their vulnerability assessments by June 30, 2004. EPA continues to provide assistance to help small water utilities identify the basic elements of vulnerability assessments and comply with completion, submission, and certification requirements. The tools help systems evaluate their susceptibility to potential threats and identify corrective actions to prepare for and respond to contamination of the nation's water supply. This continued support should expedite small systems' abilities to submit their vulnerability assessments. EPA expects that this number will continue to rise over the next few months since the due date recently passed.</p> <p>A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 27.</p> <p>FY 2003 Result Available in FY 2004: As stated in the Bioterrorism Act, large community water systems were mandated to certify the completion of their emergency response plan (ERP) within 6 months after submitting their vulnerability assessment to EPA. Large community water systems serving more than 100,000 people have now demonstrated that they have response plans in place designed to deal with emergency situations or vulnerabilities discovered through conducting their vulnerability assessments. The public's large water utilities are, therefore, better prepared for a potential threat.</p>			

STRATEGIC OBJECTIVE: PROTECT THE QUALITY OF RIVERS, LAKES, AND STREAMS ON A WATERSHED BASIS AND PROTECT COASTAL AND OCEAN WATERS. FY 2004 Cost (in thousands): \$2,549,300 (63.5% of FY 2004 Goal 2 Total Costs)

Progress Toward Strategic Objective: EPA, states and tribes, continue to use a watershed approach to protect and improve water quality nationwide, including coastal waters. In 2004, EPA, working with state and tribal partners, established

regional and state watershed-improvement targets that consider existing data and planned implementation activities. This approach, combined with a continued emphasis on enhancing state and tribal monitoring and assessment programs, and improving data collection and management efforts to provide meaningful status and trends information, will help to provide a better picture of the condition of the nation's waters.

EPA also continues to promote the use of innovative and flexible approaches, such as trading and watershed-based permitting, to achieve water quality goals. These tools can lead to administrative efficiencies, benefit all watershed stakeholders, and lead to increased environmental results.

APG 2.7 Clean Water State Revolving Fund: Annual Assistance

Planned

Actual

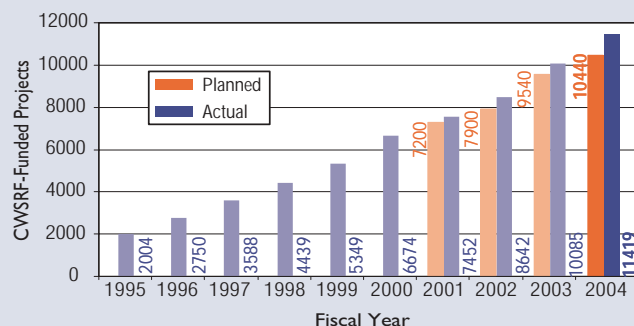
FY 2004 900 projects funded by the Clean Water State Revolving Fund (CWSRF) will initiate operations, including 629 projects providing secondary treatment, advanced treatment, Combined Sewer Overflow (CSO) correction (treatment), and/or storm water (SW) treatment. Cumulatively, 10,440 CWSRF funded projects will have initiated operations since program inception. **Goal Met.**

FY 2004 Result: EPA and the states exceeded the target for FY 2004 by more than 900 projects. The additional projects will reduce pollutant loadings and will result in accelerated environmental protection. The cumulative number of CWSRF projects initiating operations through 2004 is displayed above. These projects facilitate human health protection and pollution control by providing secondary treatment, advanced treatment, combined sewer overflow correction (treatment), and/or stormwater control.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 27.

Clean Water State Revolving Fund: Annual Assistance

900 projects funded by the Clean Water State Revolving Fund (CWSRF) will initiate operations, including 629 projects providing secondary treatment, advanced treatment, Combined Sewer Overflow (CSO) correction (treatment), and/or storm water (SW) treatment. Cumulatively, 11,187 CWSRF-funded projects will have initiated operations since program inception



APG 2.8 State/Tribal Water Quality Standards (WQSs)

Planned

Actual

FY 2004 Assure that states and tribes have effective, up-to-date water quality standards programs adopted in accordance with the regulation and the WQSs program priorities. **Goal Met.**

Performance Measures:

—States with new or revised WQSs that EPA has reviewed and approved or disapproved and promulgated federal replacement standards.

20

27

—Tribes with WQSs adopted and approved (cumulative).

33

25

FY 2004 Result: Achievement of this goal ensures that up-to-date scientifically defensible and robust standards are in place to protect the nation's waters. EPA exceeded its goal by reviewing and approving new or revised water quality standards for 27 states. EPA met the performance goal overall based on the states' standards, which apply to a far larger share of the nation's rivers, lakes, and streams than do the tribal standards. The tribal target was not met primarily due to a Supreme Court decision resulting in EPA revising its tribal

APG 2.8 State/Tribal Water Quality Standards (WQSs) (continued)

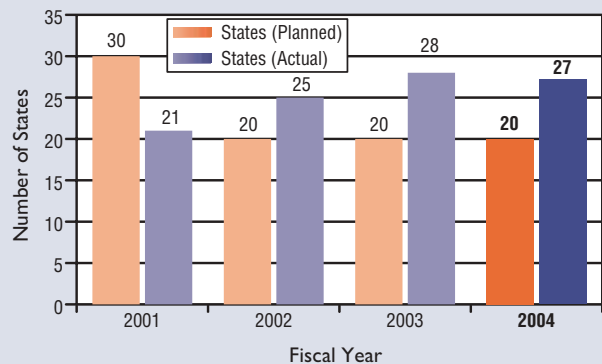
Planned

Actual

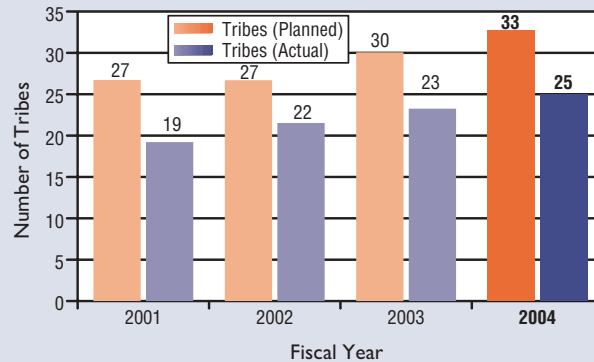
authorization process, which delayed approval of new tribal standards. By the end of FY 2004, a total of 25 tribes had EPA-approved water quality standards. EPA has made significant progress in increasing the number of tribes with water quality standards, and will accelerate progress by increasing the management accountability for EPA actions on treatment as a state (TAS) applications; continuing to provide guidance and assistance, including specialized training, and technical and legal advice, to tribes who have applied or are applying for authority to administer the WQS program, or are developing standards; and continuing to explore the possibility of promulgating federal WQS for tribes that do not have standards in place under the Act.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 28.

States with New or Revised WQSs That EPA Has Reviewed and Approved or Disapproved and Promulgated Federal Replacement Standards



Tribes with WQSs Adopted and Approved (cumulative)



APG 2.9 Watershed Protection

Planned

Actual

FY 2004	By 2005, water quality will improve on a watershed basis such that 500 of the nation's 2,262 watersheds will have greater than 80% of assessed waters meeting all water quality standards.	500	Data avail FY 2005
FY 2003	By FY 2003, water quality will improve on a watershed basis such that 600 of the nation's 2,262 watersheds will have greater than 80% of assessed waters meeting all WQSs, up from 500 watersheds in 1998. Goal Not Met.	600	453
FY 2002	Same goal, different targets. Goal Not Met	600	453
FY 2001	Same goal, different targets. Goal Not Met	550	510

FY 2004 Result: EPA relies on states' biennial reporting under Clean Water Act Section 305(b) to assess progress for this measure. EPA's analysis of states' 2004 305(b) reports, which will provide the actual performance data from FYs 2004 and 2005, will be completed by the end of FY 2005.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 28.

FY 2003 Result Available in FY 2004: EPA and states did not meet the 2003 target for a variety of reasons. Among the most critical, states have broader indication of water quality problems due to new integrated reporting methodologies in accordance with EPA guidance. EPA's and states' abilities to achieve the expected results have also been complicated by the incorporation of new water quality standards for mercury and additional pollutants.

Note: The FY 2003 Annual Report indicated that the data for this measure would be available in 2005. This was an error; the data for FY 2003, reflecting analysis of state 305(b) data from the 2002 reporting cycle, was available in late 2003. Because states' 305(b) water quality data reports are submitted biennially, targets and actuals are the same for each 2-year cycle.

APG 2.10 NPDES Permit Requirements

Planned

Actual

FY 2004

Current national pollutant discharge elimination system (NPDES) permits reduce or eliminate discharges into the nation's waters of (1) inadequately treated discharges from municipal and industrial facilities; and (2) pollutants from urban SW, CSO, and concentrated animal feeding operations (CAFOs). **Goal Not Met.**

Performance Measures:

—Major point sources are covered by current permits.	90%	85.5%
—Minor point sources are covered by current permits.	87%	87.4%
—Loading reductions (pounds per year) of toxic, non-conventional, and conventional pollutants from NPDES permitted facilities (POTWs, Industries, SIUs, CAFOs, SW, CSOs).	2,750 M	2,336 M

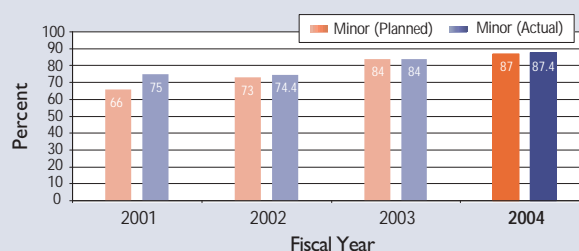
FY 2004 Result: For FY 2004, EPA and the states met the target for the percent of minor point sources covered by current permits. In FY 2004, EPA and states issued permits to achieve 85.5% coverage with current major permits. The continuing challenge of issuing major permits is due to competing priorities and the increasing complexity of permitting in a watershed context. This challenge is being addressed by the Permitting for Environmental Results initiative, which is designed to focus on permits expected to produce the most significant environmental results. An increasing number of states are issuing permits on a watershed basis and incorporating other innovative techniques, such as trading, to address the NPDES backlog and issue permits to reduce or eliminate discharges into the nation's waters. EPA also expects the reduction in pollutant loadings to increase as EPA continues to implement the revised CAFO regulation, and focuses on the most environmentally significant permits.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, pages 28-29.

Major Point Sources Covered by Current Permits



Minor Point Sources Covered by Current Permits



APG 2.11 Wastewater Treatment Facility Compliance

Planned

Actual

FY 2004

Enhance public health and environmental protection by securing the nation's critical wastewater infrastructure through support for homeland security preparedness, including vulnerability assessments, emergency operations planning, and system operator training. **Goal Met.**

Performance Measures:

Percent of the population served by, and the number of large and medium-sized (serving populations of 10,001 and larger) POTWs that have taken action for homeland security preparedness.	75%	75%
	8,000	8,000

FY 2003

Same goal, different targets. **Goal Met.**

65%	65%
5,000	5,000

APG 2.11 Wastewater Treatment Facility Compliance *(continued)*

FY 2004 Result: In FY 2004 an additional 3,000 large and medium-sized publically owned treatment works (POTWs) improved their homeland security preparedness through EPA and state operator assistance training. This brings the cumulative number of wastewater facilities prepared for a potential terrorist threat or other intentional act to 8,000. In order to track this measure, EPA grantees that provide the training report the numbers of utilities trained. EPA then uses the Clean Watersheds Needs Survey and the Permits Compliance System databases to determine and report the population served by each utility.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 29.

STRATEGIC OBJECTIVE: PROVIDE AND APPLY A SOUND SCIENTIFIC FOUNDATION TO EPA'S GOAL OF CLEAN AND SAFE WATER BY CONDUCTING LEADING-EDGE RESEARCH AND DEVELOPING A BETTER UNDERSTANDING AND CHARACTERIZATION OF THE ENVIRONMENTAL OUTCOMES UNDER GOAL 2. FY 2004 Cost (in thousands): \$149,571 (3.7% of FY 2004 Goal 2 Total Costs)

Progress Toward Strategic Objective: EPA research continues to provide crucial information for developing effective and protective drinking water standards, including verifying the effectiveness of arsenic treatment technologies and pathogen detection. In FY 2004 EPA provided an improved method for detecting *Cryptosporidium* in water. The method that is currently used on a widespread basis requires the collection and analysis of two environmental samples, while the new method requires only one environmental sample. This method will allow EPA, states, tribes, and others to more efficiently collect occurrence data on human protozoans in source water¹⁹. EPA research has also supported Agency efforts to protect the nation's waters so that they support designated uses. In FY 2004, EPA provided important new information on lesion formation in menhaden fish and its relationship to *pfisteria*, a toxic dinoflagellate associated with major fish kills about which little is known.²⁰

APG 2.12 Drinking Water Research		Planned	Actual
FY 2004	Provide final reports on the performance of arsenic treatment technologies and/or engineering approaches to the Office of Water and water supply utilities to aid in the implementation of the arsenic rule and the protection of human health. Goal Met.	9/30/04	9/30/04
<p>FY 2004 Result: In FY 2004 EPA provided information to utilities, utility consultants and states on the performance and cost of arsenic treatment technologies for drinking water for use in complying with the 2002 arsenic standard of 10 parts per billion. Nearly 97% of the water systems affected by this rule are small systems that serve less than 10,000 people each. These small systems have limited resources and need more cost-effective technologies to meet the new standard. EPA's two completed reports detail the cost to purchase arsenic treatment technologies based on technology demonstrations, and document the performance of arsenic treatment modifications at one of the treatment technology demonstration sites²¹. These demonstrations showed that the total cost of arsenic treatment technologies can vary widely, depending upon the type of technology, design features, and site conditions.</p> <p>A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 30.</p>			

APG 2.13 Wet Weather Flow Research		Planned	Actual
FY 2004	Provide to states, regions and watershed managers' indicators, monitoring strategies, and guidance for determining the effectiveness of Best Management Practices (BMPs) for wet weather flows in meeting water quality goals. Goal Met.		
Performance Measures:			
	—Report on fecal indicator monitoring protocols for different types of recreational water.	1 report	1 report
	—Provide guidance on indicator selection and monitoring strategies for evaluating the effectiveness of BMPs.	9/30/04	9/30/04

APG 2.B Wet Weather Flow Research (continued)

Planned

Actual

FY 2004 Result: In FY 2004, EPA completed a report on fecal contamination indicators in recreational waters, and guidance on indicator selection and effectiveness monitoring for best management practices (BMPs). The costs and complexities of meeting water quality goals subject to urban stormwater permits are daunting. The role of BMPs as both an effective and economical means to meet permit requirements remains the central regulatory and non-regulatory approach for restoring much of the nation's degraded water quality in urban environments. The scientific literature and reviews of current design and monitoring practices show that the effectiveness of BMPs varies, is often defined and reported differently, and that monitoring rarely documents biological water quality improvements. EPA's guidance provided in 2004 will provide states, regions and watershed managers with a means for determining the effectiveness of BMPs in meeting water quality goals.²²

For more information please visit: <http://www.epa.gov/ednrmrl/publish/main.htm>. EPA also provided information to states and others for selecting indicators of water quality contamination. In FY 2004, EPA completed a report entitled "The EMPACT Beaches Report—Results from a Study on Microbiological Monitoring in Recreational Waters." This report describes the physical and biological factors that significantly influence the results obtained using microbiological monitoring methods to measure the quality of bathing beach waters, and should improve the quality of data obtained from these monitoring efforts.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 30.

ASSESSMENT OF IMPACTS OF FY 2004 PERFORMANCE ON FY 2005 ANNUAL PLAN:
THERE ARE NO CHANGES TO NEXT YEAR'S PROJECTED PERFORMANCE GOALS ASSOCIATED WITH THIS YEAR'S RESULTS.

NOTES

- 1 U.S. Environmental Protection Agency. *List of Contaminants and Their MCLs*. Available at <http://www.epa.gov/safewater/mcl.html#mcls>
- 2 U.S. Environmental Protection Agency. *Drinking Water Data Reliability and Action Plan*. Available at http://www.epa.gov/safewater/data/pdfs/reports_draap_final_2003.pdf
- 3 More information is available at <http://epa.gov/waterscience/fish/advisories/>
- 4 U.S. Environmental Protection Agency, Office of Water. August 2004. EPA-823-F-04-016. EPA Fact Sheet. *National Listing of Fish Advisories*. Available at <http://www.epa.gov/waterscience/fish/advisories/factsheet.pdf>
- 5 U.S. Department of Health and Human Services and U.S. Environmental Protection Agency. March 2004. EPA-823-R-04-005. *What You Need To Know About Mercury In Fish and Shellfish*. Available at <http://www.epa.gov/waterscience/fishadvice/advice.html>
- 6 U.S. Environmental Protection Agency. Press Release. "Safer Water at Nation's Beaches: New Rule to Protect Against Pathogens." July 2, 2004. Available at <http://yosemite.epa.gov/opa/advpress.nsf/b1ab9f485b098972852562e7004dc686/9925d96bd2f8555485256ec50058c1b7?OpenDocument>
- 7 U.S. Environmental Protection Agency, Office of Water. July 9, 2004. "Water Quality Standards for Coastal and Great Lakes Waters." *Federal Register* Vol. 69, No. 131, pp 41720-41743. Available at <http://www.epa.gov/fedrgstr/EPA-WATER/2004/July/Day-09/w15614.pdf>
- 8 U.S. Environmental Protection Agency, Office of Water. March 2004. *National List of Beaches*. EPA-823-R-04-004. Washington, DC. Available at <http://www.epa.gov/waterscience/beaches>
- 9 U.S. Environmental Protection Agency. Press Release. "Bush Administration Commits \$10 million to Protect the Nation's Beaches." April 29, 2004. R#080. Available at <http://yosemite.epa.gov/opa/advpress.nsf/b1ab9f485b098972852562e7004dc686/e30191e77589659985256e850051a36a?OpenDocument>
- 10 U.S. Environmental Protection Agency, Office of Water. August 23, 2004. "Effluent Limitations Guidelines and New Source Performance Standards for the Concentrated Aquatic Animal Production Products Point Source Category." *Federal Register* Vol. 69, No. 162, pp. 51892-51930. Available at: <http://www.epa.gov/fedrgstr/EPA-WATER/2004/August/Day-23/w15530.htm>
- 11 U.S. Environmental Protection Agency, Office of Water. September 8, 2004. "Effluent Limitations Guidelines and New Source Performance Standards for the Meat and Poultry Products Point Source Category." *Federal Register* Vol. 69, No. 173, pp. 544476-54555. Available at <http://www.epa.gov/fedrgstr/EPA-WATER/2004/September/Day-08/w12017.htm>

- 12 U.S. Environmental Protection Agency, Office of Water. July 9, 2004. "National Pollutant Discharge Elimination System—Final Regulations to Establish Requirements for Cooling Water Intake Structures at Phase II Existing Facilities." *Federal Register* Vol. 69, No. 131, pp. 415760-41693. Available at <http://a257.g.akamaitech.net/7/257/2422/06jun20041800/edocket.access.gpo.gov/2004/04-4130.htm>
- 13 U.S. Environmental Protection Agency, Office of Water. September 2, 2004. "Notice of Availability of 2004 Effluent Guidelines Program Plan." *Federal Register* Vol. 69, No. 170, pp 53705-53721. Available at <http://www.epa.gov/fedrgstr/EPA-WATER/2004/September/Day-02/w20040.htm>
- 14 Loading reductions are calculated using a spreadsheet maintained by the Office of Science and Technology. U.S. Environmental Protection Agency, Office of Science and Technology. Updated 2004. *Loadings Reduction Spread Sheet for Direct Discharges from Point Sources Subject to Effluent Guidelines*. Unpublished Lotus 1-2-3 spread sheet.

Issuance of major permits (individual and non-storm water general permits) and individual minor permit issuance is tracked using the Permit Compliance System. U.S. Environmental Protection Agency, Office of Enforcement and Compliance Assurance, Permit Compliance System (database).

Non-storm water general permit issuance for minor permits is tracked using the Permit Issuance Forecasting Tool. U.S. Environmental Protection Agency, Office of Wastewater Management. Permit Issuance Forecasting Tool (database).
- 15 U.S. Environmental Protection Agency, Office of Water. December 2003. *Watershed-Based NPDES Permitting Implementation Guidance*. EPA-83333-B-03-004. Washington, DC. Available at <http://www.epa.gov/npdes/publications>
- 16 Refer to *Sustained Progress in Addressing Management Issues* available at <http://www.epa.gov/ocfo/finstatement/2004ar/2004ar.htm>
- 17 *Achieving Environmental Excellence: An Environmental Management Systems Handbook for Wastewater Utilities* is available at <http://www.peercenter.net>, <http://www.epa.gov/ow>, or <http://www.epa.gov/ems>
- 18 *Continual Improvement in Utility Management: A Framework for Integration* is available at <http://www.wef.org> and <http://www.peercenter.net>
- 19 Francy D. S., Simmons O.D., Ware M.W., Granger E.J., Sobsey M.D., and Schaefer F.W. Effects of spiking procedures and water quality on recovery of *Cryptosporidium* in stream water using USEPA Method 1623.
- 20 Choich, J., J.D. Salierno, E.K. Silbergeld, and A.S. Kane. "Altered brain activity in brevetoxin-exposed bluegill, *Lepomis macrochirus*, visualized using in vivo ¹⁴C 2-deoxyglucose labeling." *Environmental Research* 94 (2004) 192-197. Researchers found that a certain water mold, *A. invadans*, was the causative agent responsible for the development of characteristic lesions on menhaden that were formerly ascribed to *Pfiesteria*, and causes significant mortality in infected fish.
- 21 For more information, please visit <http://www.epa.gov/etv>.
- 22 Clar, M., B. Barfield, and T.P. O'Connor. "Stormwater Best Management Design Guide: Volume 1 General Considerations" EPA 600/R-04/121, Volume 2 EPA 600/R-04/121A, and Volume 3 EPA 600/R-04/121B. For more information, please visit <http://www.epa.gov/ednnrmrl/publish/main.htm>.

GOAL 3: Land Preservation and Restoration



Preserve and restore the land by using innovative waste management practices and cleaning up contaminated properties to reduce risks posed by releases of harmful substances.

During FY 2004, EPA's waste management and emergency response programs worked with state, tribal, and local governments to implement and oversee 15 separate statutory authorities.¹ Many stakeholders—including non-governmental organizations, industry associations, and Federal Advisory Committee Act groups—assisted these efforts. Through these partnerships, the Agency met or exceeded all of its hazardous waste cleanup and prevention goals for FY 2004.

Four themes characterize EPA's land program activities under Goal 3: Revitalization; One Cleanup Program; Recycling, Waste Minimization, and Energy Recovery; and Homeland Security. The Agency's enforcement and research programs are essential elements common to all four themes. For example, private parties pay for and conduct most cleanups of contaminated sites. EPA's Superfund program has a longstanding "enforcement first" policy to pursue viable, responsible parties to pay for or carry out cleanups. At Resource Conservation and Recovery Act (RCRA) corrective action facilities, owners and operators conduct studies and perform cleanups. Because EPA's enforcement program provides leverage to encourage voluntary efforts, many private parties have undertaken cleanups without enforcement orders.

From 1986 through 2002, using innovative cleanup technologies resulted in an estimated net cost savings of \$2.7 billion and an average savings of 71 percent per site.

EPA's research helps to accelerate development of scientifically defensible, cost-effective waste management and remediation methods. EPA's Office of Research and Development contributed significantly to EPA's new guidance on remediating contaminated sediments² and continues to advise managers of large contaminated sediment cleanup projects. The Superfund Innovative

Technology Evaluation (SITE) program identifies, demonstrates, and assesses innovative and alternative environmental technologies and distributes information to developers, remediation site managers, and regulators, resulting in more efficient site characterization and remediation. From the SITE program's inception in

1986 through 2002, the use of innovative technologies to clean up contaminated sites has resulted in an estimated net cost savings of \$2.7 billion and an average savings of 71 percent per site.³

REVITALIZATION

EPA and its partners are restoring contaminated land to make it economically productive or available as green space. Like the Agency's Brownfields Program discussed under Goal 4, these revitalization efforts complement traditional cleanup programs and enable affected communities to reuse contaminated lands in beneficial ways.⁴

For example, restoring Michigan's Torch Lake, a former copper mining site of over 800 acres of slag, stamp sands, and other mine spoils, has increased plant diversity from 5 to 76 species and bird sightings from 0 to over 24 species. In FY 2004, EPA and Michigan Technological University instituted a unique program under which local area high schools continue to monitor birds, plants, and soil at Torch Lake. EPA is developing performance measures to assess its success in restoring and revitalizing sites under all of its cleanup programs.

EPA's partnership with the Wildlife Habitat Council (WHC), an organization of corporations and environmental groups that promotes ecological enhancement projects, has given rise to other innovative revitalization efforts. Projects are underway to improve habitat, restore native species, and forge stronger bonds between communities and their natural environments. In FY 2004, EPA challenged WHC companies to identify opportunities for enhancing the ecology of properties contaminated by hazardous waste by 2005, to design and initiate at least one project by 2006, and to address 10 percent of the remaining projects in each subsequent year.

PIPELINE RUPTURE IN FAIRFIELD, CALIFORNIA

In FY 2004, a pipeline rupture released approximately 95,000 gallons of diesel fuel into a marsh in Fairfield, California, contaminating the 220-acre area. Over 2 months, EPA combined traditional removal techniques and bioremediation to clean up the site. Removal activities are now complete; the marsh has been protected and returned to productive use.



ONE CLEANUP PROGRAM

Under its One Cleanup Program, EPA looks across all cleanup programs to increase consistency and enhance effectiveness. Using the One Cleanup Program approach, the Agency and its partners are streamlining existing programs to achieve greater efficiencies. For example, EPA is working with Arkansas and Oklahoma on a pilot project to streamline the RCRA corrective action process and promote flexible practical

Streamlining pilot saves an estimated 19 years in cleanup time and \$11.25 million in cleanup costs at five facilities.

approaches, while preserving the integrity of existing guidance and regulations. The pilot, which includes five facilities, thus far has saved an estimated 19 years in cleanup time and \$11.25 million in cleanup costs. In April 2004, EPA and Pennsylvania signed a One Cleanup Program memorandum of agreement to facilitate implementing the state's voluntary cleanup program. This agreement will leverage existing cleanup authorities, coordinate cleanup programs to promote sound and effective remedies, and maximize infrastructure development.⁵ In another case, a federal environmental work group was formed in November 2003 to discuss ways to improve cleanup at federal facilities by focusing on RCRA/CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act) coordination, mine waste repositories, and lead Agency designation.⁶

The Agency's two major cleanup programs, Superfund and RCRA now rely on similar environmental indicators.⁷ In FY 2004, Superfund and RCRA cleanup programs met or exceeded annual and multi-year goals for human health environmental indicators and for groundwater protection environmental indicators. Eighty-three percent of Superfund sites (1,242 sites) and 84 percent of RCRA correction action

facilities (1440 facilities) met human health indicators, having adequately protective controls in place to prevent any unacceptable human exposure under current land and groundwater use. EPA's Superfund program met this human health goal in part by providing alternative drinking water to nearly 615,000 people at National Priority List (NPL) and non-NPL sites where available supplies were determined to be unsafe, and relocating over 45,000 people in instances where contamination posed the most severe, immediate threats to life and health. Sixty-seven percent of Superfund sites (875 sites) and 70 percent of RCRA corrective action facilities (1199 facilities) met groundwater protection indicators, having abated the migration of contaminated groundwater through engineered remedies or natural processes.

By the end of FY 2004, the Superfund program completed construction at 926 NPL sites, nearly 61 percent. 458 construction projects are continuing at 345 NPL sites (excluding federal facilities). Two-thirds of these projects (309) are led by Potentially Responsible Parties. As a result of Superfund's cleanups, 490 NPL sites now have land ready for reuse, and 300 of these are in use.

900TH SUPERFUND CONSTRUCTION COMPLETED

In FY 2004, EPA completed the 900th Superfund construction, at the Solitron Microwave Superfund site in Port Salerno, Florida. The developer who purchased the Solitron property plans to construct a 20-acre industrial park, which will provide 150,000 square feet of warehouse and light industrial space.



RECYCLING, WASTE MINIMIZATION, AND ENERGY RECOVERY



EPA's Resource Conservation Challenge (RCC) is a voluntary program that increases regulatory flexibility, promotes opportunities for converting waste to economically viable products,

and encourages resource conservation through efficient materials management. In FY 2004, EPA and the states initiated a strategic planning process based on five RCC program elements: product stewardship, beneficial use, energy conservation and recovery, priority chemicals, and greening the government. In March 2004, the RCC published its first annual report on the program's accomplishments and progress.⁸

The RCC's success is evident in a number of states. In North Carolina, EPA and the Land-of-Sky Regional Council's Waste Reduction Partners developed a model recycling market for used wooden pallets. The project demonstrated that unique, highly stylized flooring can be made from used pallet deck boards, and that a market exists for this material at prices that make the process economically viable for small private enterprises with wood processing expertise. In another project, EPA, Michigan, Ohio, Illinois, Indiana, New York, Pennsylvania, Connecticut, Alabama, and supporting private-sector organizations collaborated to inventory and map scrap tire piles, plan cleanups, set resource priorities, and develop a guidebook and training program on best practices for tire pile mitigation.

EPA's WasteWise program, another successful voluntary effort, promotes reductions in municipal solid waste and targeted industrial wastes. WasteWise participants design waste reduction programs tailored to their

own needs, benefiting both the environment and their bottom lines. Through WasteWise, the Fort Independence Reservation in California was awarded a 2004 Program Champion Award for developing and implementing an innovative solid waste management program. To date, the Tribe has recycled more than 1,200 pounds of glass, plastic, paper, cardboard, aluminum, and other materials. Further, by successfully



Preserving Resources,
Preventing Waste

encouraging community recycling and making arrangements with the local landfill, the tribe is generating enough money from the sale of these materials to fund the program.

HOMELAND SECURITY

EPA continues to improve its emergency preparedness and response capability, particularly in terms of homeland security. During FY 2004, EPA worked with its federal partners to enhance the incident command/unified command system across government and the private sector; deliver federal assistance to states at the Federal Emergency Management Agency's direction; and, as a member of the Catastrophic Disaster Response Group, develop national policy and guidance on response coordination and emergency support function issues.

In FY 2004, EPA reduced by 56 percent the deficit in core emergency response readiness, thus improving the Agency's capability for responding to multiple chemical, biological, and radiological incidents. EPA field responders and National Response System special forces received extensive response-related training: scientific and technical training for detecting, analyzing, and responding to chemical, biological, and radiological agents and training in managing incident command system responses. During

PLASTICS RECYCLING IN NEW HAMPSHIRE

Each year, nearly 200,000 tons of plastic are sent to landfills in New Hampshire alone. Disposal costs, excluding transportation, run about \$70 per ton. In 1998, EPA awarded \$141,000 to the New Hampshire Governor's Recycling Program to study the feasibility of developing a facility to recycle mixed plastics in northern New England. In June 2004, a new company—New Frontier Industries—was incorporated and began manufacturing and selling plastic highway sound barriers and lumber.



FY 2004, EPA first responders participated in more than 150 training exercises with their federal, state, and local counterparts.

Challenges and Directions for the Future

Cleanup and waste management programs faced several challenges in FY 2004 that affected activities under one or more of the Goal 3 themes. For example, the Superfund program faced a growing backlog of projects ready to begin construction, coupled with the challenge of funding several large and complex ongoing projects. During FY 2004, Superfund underwent a series of internal and external evaluations to explore this problem.⁹ As a result, the program has engaged in a public dialogue to identify and implement a series of reforms that will address these issues over the coming years.¹⁰ The Base Realignment and Closure (BRAC) program anticipates challenges in meeting requirements for existing bases and putting those facilities back into productive

reuse, while at the same time addressing a new round of BRAC sites to be announced in 2005.

Because MTBE (methyl tertiary-butyl ether) contamination and increased technical complexities make cleaning up remaining leaking underground storage tank (UST) sites particularly challenging, states are having greater difficulty meeting cleanup targets. As a result, the UST program may not meet its FY 2004 target of 21,000 cleanups. EPA recognizes that completing fewer cleanups extends the potential for environmental harm and delays restoration and reuse of contaminated sites. However, during the first half of FY 2004 the Agency and its partners were able to complete more than 8,000 cleanups,¹¹ reducing the backlog to 132,443, and are on track for reducing the UST cleanup backlog by 50 percent by 2008.

In FY 2004, the UST program began a review to improve measurement of environmental and public health outcomes of tank cleanups. Findings are expected by December 2004. In addition, the program is exploring methodologies for setting its current cleanup targets for 2005 and beyond, using results from a backlog characterization pilot currently underway and a state-based model that projects future cleanup results. In FY 2003, EPA clarified the terms “confirmed releases,” “cleanups initiated,” and “cleanups

completed” to address some states’ concerns about sites where they have determined no cleanup action is necessary to meet risk-based cleanup levels.

Finally, the most recent data available for municipal solid waste (MSW) recycling show that per capita generation of MSW is remaining stable at slightly less than 4.5 pounds daily, while increases in the rate

of recycling are not occurring as projected. Consequently, EPA is unlikely to reach its goal of 35 percent recycling by 2005 and is extending this goal to 2008. To help increase recycling, EPA will focus its RCC more strategically, targeting specifically the paper, plastics, packaging, and organics segments of the MSW stream. In addition, EPA recently launched its “Greenscapes” program to encourage

composting of food and yard wastes—organic materials representing over 25 percent of MSW—and using the compost to landscape roads, highways, golf courses, ski resorts, and industrial and institutional facilities.



GOAL 3: LAND PRESERVATION AND RESTORATION

Annual Performance Goals Met: **4**
 Annual Performance Goals Not Met: **0**
 Data Available After 11/5/04: **3**

FY2004 Obligations (in thousands):

EPA Total: \$10,155,381
 Goal 3: \$1,679,885
 Goal 3 Share of Total: 16.6%

FY2004 Costs (in thousands):

EPA Total: \$8,837,375
 Goal 3: \$2,021,672
 Goal 3 Share of Total: 22.9%

STRATEGIC OBJECTIVE: BY 2008, REDUCE ADVERSE EFFECTS TO LAND BY REDUCING WASTE GENERATION, INCREASING RECYCLING, AND ENSURING PROPER MANAGEMENT OF WASTE AND PETROLEUM PRODUCTS AND FACILITIES IN WAYS THAT PREVENT RELEASES. FY 2004 Cost (in thousands): \$228,653 (11.3% of FY 2004 Goal 3 Total Costs)

Progress Toward Strategic Objective: EPA waste management programs are on track to meet their obligations under the Agency's 2003 Strategic Plan. Although recycling rates are less than expected, EPA expects that the nation will meet the 2008 challenge of recycling 35% of municipal solid waste and generating a level of no more than 4.5 pounds per capita daily. The Resource Conservation and Recovery Act (RCRA) permitting program is making progress on the goal of attaining permits or approved controls at 95% of the permitted facilities, and is establishing a framework to ensure prompt permit renewals. More than 85% of the 2,751 hazardous waste management facilities nationwide have permits or approved controls. The underground storage tank program is on track with developing methods to monitor compliance, and the level of confirmed releases from tanks has already demonstrated a significant decline. The hazardous waste combustion program is successfully developing measures and controls to reduce hazardous waste combustion facility emissions of dioxins, furans and particulate matter.

APG 3.1 Municipal Solid Waste Source Reduction		Planned	Actual
FY 2004	Divert an additional 1% (for a cumulative total of 33% or 79 million tons) of municipal solid waste from land filling and combustion, and maintain per capita generation of RCRA municipal solid waste at 4.5 pounds per day.	79 M 4.5 lbs	Data avail 2006
FY 2003	Same Goal, different target.	74 M 4.5 lbs	Data avail 2005
FY 2002	Same Goal, different target.	69 M 4.5 lbs	Data avail 2004
FY 2001	Same Goal, different target. Goal Not Met.	67 M 4.3 lbs	68 M 4.4 lbs
FY 2004 Result: Municipal solid waste (MSW) recycling data for 2004 will be available in December 2006. The latest available data for year 2001 recycling, along with data from previous years, indicate that recycling continues to grow, but at a pace slower than anticipated. As a result, the Agency extended the time necessary for the nation to achieve the 35% recycling rate from 2005 to 2008 in the 2003 Strategic Plan. To increase the rate of recycling, EPA is directing its Resource Conservation Challenge (RCC) to strategically focus on particular segments of the MSW stream, specifically, paper, plastics, packaging, and organics. For example, to address one of the largest segments, paper, EPA is increasing its efforts with the American Forest and Paper Association to help reach its goal of recovering 55% of the paper consumed in the United States by 2012. In recent years, domestic paper recovery efforts have been severely strained by fierce competition in China where demand for recovered paper is at an all-time high. Data for exported waste are not available, so it is possible that part of the decline in recycling is due to exports rather than an increase in the percentage of waste landfilled or			

APG 3.1 Municipal Solid Waste Source Reduction (continued)

Planned

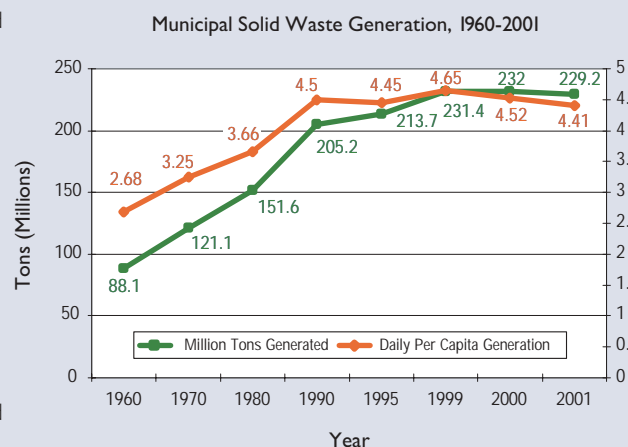
Actual

combusted. Furthermore, diversion of massive quantities of paper to China results in shuttering of paper-making capacity in the United States, leading to a reduction in industrial demand for recovered paper. In addition, EPA recently launched its "Greenscapes" program to foster the composting of food and yard wastes, which represent more than 25% of MSW, and the use of this compost for landscaping of roads, highways, golf courses, ski resorts, and industrial and institutional facilities. Per capita generation of MSW continues to be stable at slightly less than 4.5 pounds daily.

Data for the charts displayed available at <http://www.epa.gov/epaoswer/non-hw/muncpl/facts.htm>.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 30.

FY 2001 Result Available in FY 2004: Municipal solid waste diverted from landfilling and combustion exceeded expectations with a total of 68 million tons, but the per capita generation number did not decline to the expected level of 4.3 pounds per day.



APG 3.2 Manage Hazardous Waste and Petroleum Products Properly

Planned

Actual

FY 2004

Reduce releases to the environment by managing hazardous wastes and petroleum products properly.

Performance Measures:

—RCRA hazardous waste management facilities with permits or other approved controls.

2.4%

3.7%

—Confirmed UST releases nationally.

<10,000

Data avail 2004

—Increase in UST facilities in significant operational compliance with leak detection requirements.

4%

Data avail 2004

—Increase in UST facilities in significant operational compliance with spill, overfill and corrosion protection regulations.

4%

Data avail 2004

FY 2003

Increase the number of waste and petroleum facilities with acceptable or approved controls in place to prevent releases to the environment. **Goal Not Met.**

Performance Measures:

—Percent of RCRA hazardous waste management facilities with permits or other approved controls.

77.2%

83.2%

—Increase in UST facilities in significant operational compliance with leak detection requirements.

3%

-8%

—Increase in UST facilities in significant operational compliance with spill, overfill and corrosion protection regulations.

3%

-6%

FY 2002

75.8% of the hazardous waste management facilities will have approved controls in place to prevent dangerous releases to air, soil, and groundwater, representing an average increase of 39 additional facilities per year. **Goal Met.**

75.8%

79.0%

FY 2001

Same Goal, different targets. **Goal Met.**

68%

74%

APG 3.2 Manage Hazardous Waste and Petroleum Products Properly (continued)

FY 2004 Result: In FY 2004 the RCRA permitting program exceeded its annual goal of 2.4% by establishing permits or approved controls at 103 of 2,752 facilities for an additional 3.7%. As a result, 87% of the 2,752 hazardous waste management facilities have permits or approved controls, meaning that the program has already exceeded its FY 2005 goal of 80%.

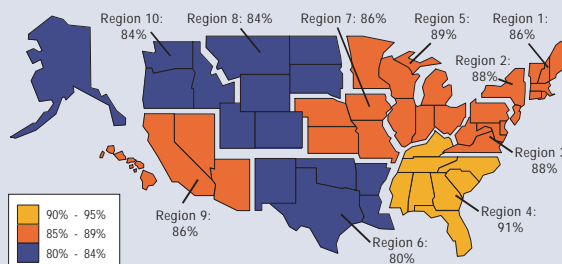
End-of-year performance data for the underground storage tank (UST) compliance program for FY 2004 will not be available until December 2004, but EPA does not anticipate that the goals for the two compliance measures will be met. As of mid-year FY 2004, the compliance rate for leak detection was 71%, or 5% below the target compliance rate of 76% at the end of the year. As of mid-year FY 2004, the compliance rate for release prevention was 77% or 6% below the target compliance rate of 83% at the end of the year. While these compliance rates are slightly lower than those in past reports, they are more accurate indicators of operational compliance since states are now following new EPA guidance (issued at the end of FY 2003) on what constitutes operational compliance. These compliance rates represent a snapshot in time. Some UST facilities that are compliant one year may be out of compliance the following year.

For FY 2004, states and regional offices reported the percent of UST facilities in operational compliance with release prevention requirements, release detection requirements, and both requirements together. For the combined measure, EPA established a goal of increasing the compliance rate by 1% per year from FYs 2005–FY 2008. This is a reasonable goal since constant vigilance is required to ensure facilities remain in significant operational compliance. Even maintaining existing compliance rates will require effort by EPA and its state partners. FY 2004 is the baseline year for the combined compliance rate measure. At the mid-year FY 2004, the combined compliance rate was 62%. The decline in confirmed releases of underground storage tanks between FY2003 and the first half of FY 2004 demonstrates the effectiveness of state efforts to implement improved release detection and prevention requirements. In the first half of FY 2004, there were only 4,185 confirmed releases, 50% fewer than in the first half of FY 2003.

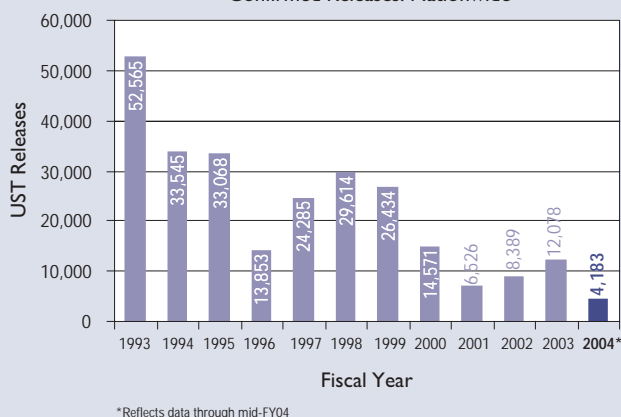
A description of the quality of the data used to measure EPA's performance can be found in Appendix B, pages 30-31.

FY 2003 Result Available in FY 2004: In FY 2003, EPA did not meet its goal to increase by 3% to 80% for the leak detection requirements or to increase by 3% to 85% for the spill, overfill and corrosion protection requirements. The final compliance rates for FY 2003 were 72% (or 8% less than the target of 80%) for UST facilities in significant operational compliance with leak detection requirements, and 79% (or 6% less than the target of 85%) for UST facilities in significant operational compliance with spill, overfill and corrosion protection. Although the Agency has been working with the states to improve their reporting of both measures, the compliance rates for both have been steady or declining. Several reasons could explain this trend: some states have more stringent requirements; some states target non-compliant UST facilities for inspection that are not representative of state sampling; and the compliance rates represent a snapshot in time so that some UST facilities which are compliant 1 year may be out of compliance the following year; thus compliance rates appear low.

RCRA Permitting Progress
—Progress Toward the FY 2005 Goals
(National Results: 87%)



Confirmed Releases: Nationwide



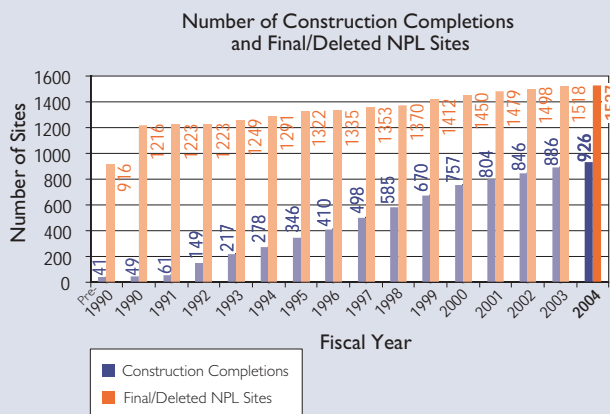
STRATEGIC OBJECTIVE: By 2008, CONTROL THE RISKS TO HUMAN HEALTH AND THE ENVIRONMENT BY MITIGATING THE IMPACT OF ACCIDENTAL OR INTENTIONAL RELEASES AND BY CLEANING UP AND RESTORING CONTAMINATED SITES OR PROPERTIES TO APPROPRIATE LEVELS. FY 2004 Cost (in thousands): \$1,736,294 (85.9% of FY 2004 Goal 3 Total Costs)

Progress Toward Strategic Objective: EPA cleanup programs have made considerable progress meeting their commitments. Superfund and the RCRA corrective action programs are also striving to attain indicators that demonstrate protection of

human health and the environment, and to clean up contamination at designated sites and facilities. Through the end of FY2004, EPA had assessed more than 45,000 sites and completed final cleanup plans at more than 1,100 Superfund baseline sites. In addition, more than 33,000 sites have been removed from the CERCLIS waste site list since the beginning of the program indicating they would be addressed by other authorities, they were clean or that no additional federal action was required. Deleting sites is a helpful step in promoting the economic redevelopment of these properties. Also, the Superfund Program cleaned up or had construction underway at 94% (1,442) of the 1,529 sites on the final NPL (includes final and deleted sites). Of these 1,529 sites, 926, or nearly 61%, have cleanup construction completed. Construction projects are ongoing at more than 346 NPL sites. In the course of construction since the Superfund program began, EPA has treated or removed 1 billion cubic yards of hazardous solid waste and addressed 381 billion gallons of hazardous liquid waste (including contaminated groundwater). At the close of FY 2004, nearly 83% (1,242 of 1,494) of baseline Superfund sites had human exposures under control, meaning that adequately protective controls are in place to prevent any unacceptable human exposures from occurring under current land and groundwater use. In addition, the migration of contaminated groundwater was under control at nearly 67% (875 of 1,306) of baseline Superfund sites by the close of FY 2004. In addition to cleanup activities, EPA has accomplished this protection of human health since the program's inception by: (1) providing alternative drinking water supplies to nearly 615,000 people at NPL and non-NPL sites to protect them from contaminated ground and surface water, and (2) relocating more than 45,000 people at NPL and non-NPL sites in instances where contamination posed the most severe immediate threats. Meeting ambitious cleanup goals continues to be a challenge for the leaking underground storage tank (LUST) program. The rate of LUST cleanups has been declining in recent years, and available data suggest that the program will not meet its 2008 goals. Efforts are currently underway to identify opportunities for program improvement and create a new model for establishing future LUST cleanup targets.

APG 3.3 Assess and Clean Up Contaminated Land		Planned	Actual
FY 2004	Control the risks to human health and the environment at contaminated properties or sites through cleanup, stabilization, or other action, and make land available for reuse. <i>Performance Measures:</i> —Superfund final site assessment decisions. —Superfund construction completions. —Superfund hazardous waste sites with human exposures controlled. —Superfund hazardous waste sites with groundwater migration controlled. —Final remedies (cleanup targets) selected at Superfund sites. —High priority RCRA facilities with human exposures to toxins controlled. —High priority RCRA facilities with toxic releases to groundwater controlled. —LUST cleanups completed.	500 40 10 10 20 166 129 21,000	548 40 15 18 30 195 150 Data avail 2004
FY2003	Assess waste sites. <i>Goal Met.</i> <i>Performance Measures:</i> —Number of Superfund final site assessment decisions. —Number of Superfund removal response actions initiated.	475 275	917 380
FY 2003	Clean up and reduce risk at waste sites. <i>Goal Not Met.</i> <i>Performance Measures:</i> —Number of Superfund construction completions. —Number of Superfund hazardous waste sites with human exposures (HE) controlled.	40 10	40 28

APG 3.3 Assess and Clean Up Contaminated Land <i>(continued)</i>		Planned	Actual
FY 2003 <i>(continued)</i>	—Number of Superfund hazardous waste sites with groundwater migration controlled.	10	54
	—Number of high priority RCRA facilities with human exposures to toxins controlled.	197	230
	—Number of high priority RCRA facilities with toxic releases to groundwater controlled.	158	175
	—Number of leaking underground storage tank (LUST) cleanups completed.	21,000	18,518
Superfund Cleanup			
FY 2002	EPA and its partners will complete 40 Superfund cleanups (construction completions). Goal Met.	40	42
FY 2001	Same Goal, different targets. Goal Not Met.	75	47
RCRA Corrective Actions			
FY 2002	172 (for a cumulative total of 995 or 58%) of high priority RCRA facilities will have human exposure (HE) controlled and 172 (for a cumulative total of 882 or 51%) of high priority RCRA facilities will have groundwater releases (GWR) controlled. Goal Met.	172 HE 172 GWR	205 HE 171 GWR
FY 2001	Same Goal, different targets. Goal Not Met.	172 HE 172 GWR	179 HE 154 GWR
Leaking Underground Storage Tank Cleanups			
FY 2002	EPA and its partners will complete 22,000 LUST cleanups for a cumulative total of approximately 290,000 cleanups since 1987. Goal Not Met.	22,000	15,769
FY 2001	Same Goal, different targets. Goal Not Met.	21,000	19,074
<p>FY 2004 Result: In FY 2004, the Superfund program improved public health through response activities that reduced current, direct human exposures to hazardous pollutants. The program achieved its target of 40 construction completions, and surpassed targets for all other goals. At the close of FY 2004, more than 83% (1,242 of 1,494) of baseline sites had human exposures under control, meaning that adequately protective controls are in place to prevent any unacceptable human exposures from occurring under current land and groundwater use. In addition, the migration of contaminated groundwater was under control at nearly 67% (875 of 1,306) of baseline sites by the close of FY 2004. EPA has accomplished this protection of human health since the program's inception by: (1) providing alternative drinking water supplies to nearly 615,000 people at NPL and non-NPL sites to protect them from contaminated and surface water; and (2) relocating more than 45,000 people at NPL and non-NPL sites in instances where contamination posed the most severe immediate threats.</p> <p>EPA is unlikely to meet its FY 2004 target of completing 21,000 LUST cleanups, and reducing the national LUST cleanup backlog of 132,000 to 66,000 by FY 2008. EPA has established a range for the annual national cleanup goal of 18,000 to 23,000 cleanups to encourage state progress in reducing the cleanup backlog in half. It has, however, been more difficult for the states and regional offices</p>			



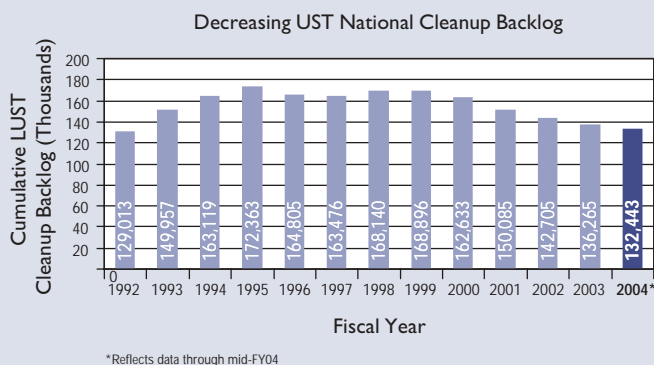
APG 3.3 Assess and Clean Up Contaminated Land (continued)

to meet these goals because of the increasing complexities with the remaining backlog of cleanups and MTBE contamination. In the first half of FY 2004, EPA and its partners were able to complete more than 8,000 cleanups¹² and reduce the cleanup backlog to 132,443. The completion of fewer cleanups will potentially result in extended impacts to the environment and natural resources and delay functional re-use of the land or resources.

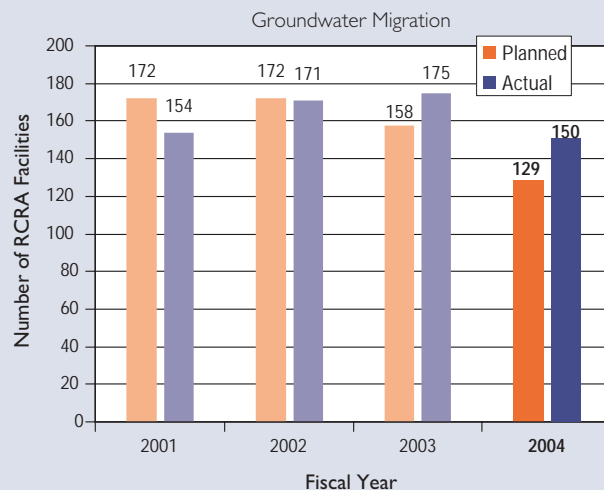
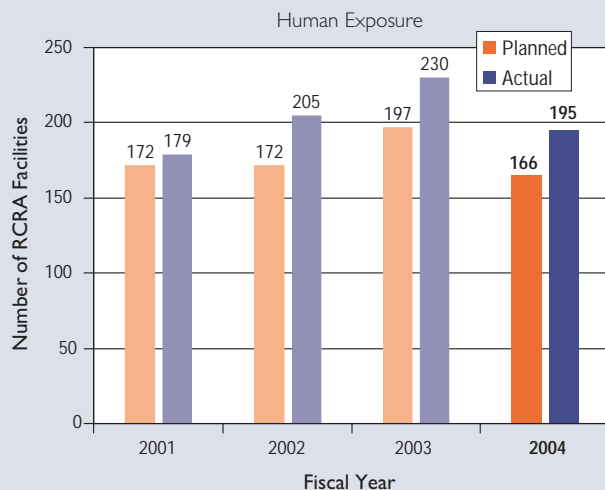
The RCRA corrective action program also met its goals, and has reported documentation of controlled human exposures at 195 sites (annual goal of 166) and groundwater migration at 150 sites (annual goal of 129). Cumulatively, the program has controlled human exposures at 84% (1,440) of 1,714 high-priority RCRA sites, and groundwater migration at 70% of these sites (1,199).

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, pages 31-32.

FY 2003 Result Available in FY 2004: EPA did not meet the FY 2003 goal of completing 21,000 cleanups at leaking underground storage tank sites; 18,518 cleanups were completed. The reasons for not meeting this goal are the same as those discussed above for FY 2004.



RCRA Environmental Indicators



APG 3.4 Superfund Potentially Responsible Party Participation

Planned

Actual

FY 2004

Reach a settlement or take an enforcement action by the start of remedial action at 90% of those Superfund sites having known non-Federal, viable, liable parties. **Goal Met.**

90%

98%

FY 2004 Result: In FY2004, EPA reached a settlement or took an enforcement action by the start of remedial action at more than 98% of those Superfund sites having known non-Federal, viable, liable parties, and achieved its goal. Settlements or enforcement actions include: Consent Decree (CD), Administrative Order on Consent (AOC), Consent Agreement (CA), Unilateral Administrative Order (UAO), voluntary cost recovery action, or litigation referral.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, pages 31-32.

APG 3.5 Superfund Cost Recovery		Planned	Actual																																																				
FY 2004	Ensure trust fund stewardship by getting PRPs to initiate or fund the work and recover costs from PRPs when EPA expends trust fund monies. Address cost recovery at all NPL and non-NPL sites with a statute of limitations on total past costs equal to or greater than \$200,000. Goal Met.	100%	100%																																																				
FY 2003	Same Goal. Goal Met.	100%	100%																																																				
FY 2002	Same Goal. Goal Met.	100%	100%																																																				
FY 2001	Same Goal. Goal Not Met.	100%	97.8%																																																				
<p>FY 2004 Result: EPA achieved its goal of addressing, through enforcement, settlement or compromise/write-off, all of the pending cost recovery cases with outstanding unaddressed past costs greater than \$200,000 and pending statute of limitations (SOL) concerns. In FY 2004, EPA addressed cost recovery actions at 183 NPL and non-NPL sites, of which 84 had total past costs greater than or equal to \$200,000 and potential SOL concerns. EPA secured cost recovery commitments valued at \$157.4 million.</p> <p>A description of the quality of the data used to measure EPA's performance can be found in Appendix B, pages 31-32.</p>																																																							
<p style="text-align: center;">Cumulative Response and Cost Recovery Settlements</p> <table border="1"> <caption>Estimated Data for Cumulative Response and Cost Recovery Settlements (\$ Billions)</caption> <thead> <tr> <th>Fiscal Year</th> <th>Cleanup</th> <th>Cost Recovery</th> <th>Total</th> </tr> </thead> <tbody> <tr><td>1981</td><td>0.0</td><td>0.0</td><td>0.0</td></tr> <tr><td>1983</td><td>0.1</td><td>0.0</td><td>0.1</td></tr> <tr><td>1985</td><td>0.5</td><td>0.0</td><td>0.5</td></tr> <tr><td>1987</td><td>1.0</td><td>0.1</td><td>1.1</td></tr> <tr><td>1989</td><td>2.5</td><td>0.2</td><td>2.7</td></tr> <tr><td>1991</td><td>4.5</td><td>0.3</td><td>4.8</td></tr> <tr><td>1993</td><td>6.5</td><td>0.4</td><td>6.9</td></tr> <tr><td>1995</td><td>8.5</td><td>0.5</td><td>9.0</td></tr> <tr><td>1997</td><td>10.5</td><td>0.6</td><td>11.1</td></tr> <tr><td>1999</td><td>12.5</td><td>0.7</td><td>13.2</td></tr> <tr><td>2001</td><td>14.0</td><td>0.8</td><td>14.8</td></tr> <tr><td>2003</td><td>15.0</td><td>0.4</td><td>15.4</td></tr> </tbody> </table>				Fiscal Year	Cleanup	Cost Recovery	Total	1981	0.0	0.0	0.0	1983	0.1	0.0	0.1	1985	0.5	0.0	0.5	1987	1.0	0.1	1.1	1989	2.5	0.2	2.7	1991	4.5	0.3	4.8	1993	6.5	0.4	6.9	1995	8.5	0.5	9.0	1997	10.5	0.6	11.1	1999	12.5	0.7	13.2	2001	14.0	0.8	14.8	2003	15.0	0.4	15.4
Fiscal Year	Cleanup	Cost Recovery	Total																																																				
1981	0.0	0.0	0.0																																																				
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APG 3.6 Prepare for and Respond to Accidental and Intentional Releases		Planned	Actual
FY 2004	Reduce and control the risks posed by accidental and intentional releases of harmful substances by improving our nation's capability to prepare for and respond more effectively to these emergencies. Goal Met.		
Performance Measures:			
—Superfund removal response actions initiated.		350	385
—Oil spills responded to or monitored by EPA.		300	308
—Percentage of emergency response and homeland security readiness improvement.		10%	56%
FY 2003	Improve homeland security response readiness and continue assessment of critical facility vulnerability. Goal Not Met.		
Performance Measures:			
—Develop baseline data for response readiness, incorporation of Homeland Security into community contingency plans, and critical facilities requiring vulnerability assessments.		Baseline data	823 (Baseline)
—Number of oil facilities in compliance with spill prevention, control and countermeasure provisions of oil pollution prevention regulations.		600	525
FY 2002	Respond to or monitor 300 significant oil spills in the inland zone. Goal Met.	300	322

APG 3.6 Prepare for and Respond to Accidental and Intentional Releases (continued)

FY 2004 Result: EPA continues to respond to or monitor oil spills to prevent oil discharges into the nation's inland waterways as stated in the National Contingency Plan. In FY 2004 EPA initiated 385 removal cleanup actions at hazardous waste sites to reduce immediate threats to human health and the environment, for a total of 8,286 removal actions over the life of the program. EPA was also involved in 308 oil spill response actions. As part of the National Response System, EPA ensures that inland oil spills are evaluated and addressed by the local, state, or tribal government or by the responsible party, and serves as the "safety net" for those responses that are beyond the capabilities of those other agencies. EPA receives approval from the Coast Guard for use of the oil spill trust fund administered by National Pollution Funds Center. A readiness performance measure for core emergency response programs was established in FY 2003 that will prove a useful management tool in assuring the Agency's ability to respond to simultaneous large scale emergencies resulting from accidental or intentional uncontrolled releases. In FY 2004 EPA exceeded its target of 10% by reducing the deficit of core emergency response readiness 56%. The program will maintain high degrees of readiness for the foreseeable future. Efforts are ongoing with facility response plan and risk management plan evaluation that demonstrate the effectiveness of safeguards in place.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, pages 31-33.

STRATEGIC OBJECTIVE: PROVIDE AND APPLY SOUND SCIENCE FOR PROTECTING AND RESTORING LAND BY CONDUCTING LEADING-EDGE RESEARCH AND DEVELOPING A BETTER UNDERSTANDING AND CHARACTERIZATION OF THE ENVIRONMENTAL OUTCOMES UNDER GOAL 3. FY 2004 Cost (in thousands): \$56,726 (2.8% of FY 2004 Goal 3 Total Costs)

Progress Toward Strategic Objective: To meet this objective, EPA is providing important information on monitored natural recovery as a remedy for contaminated sediments at Superfund sites. EPA is also providing information on the performance of an innovative treatment technology that can destroy or remove PCBs from contaminated river sediment, and result in a product with beneficial reuse. Specifically, this process treats river sediment impacted by PCBs, other organics, and metals by melting the sediment at nearly 3,000 degrees, destroying the contaminants and producing a glass aggregate that can be used as an additive to concrete, a material in floor tiles, and construction fill.¹³

APG 3.7 Scientifically Defensible Decisions for Site Clean-up		Planned	Actual
FY 2004	<p>Provide risk assessors and managers with site-specific data sets on 3 applications detailing the performance of conventional remedies for contaminated sediments to help determine the most effective techniques for remediating contaminated sites and protecting human health and the environment. Goal Met.</p> <p><i>Performance Measure:</i></p> <p>Reports on performance data for conventional sediment remedies for three sites.</p>	3 reports	3 reports
FY 2003	<p>To ensure cost-effective and technically sound site clean-up, deliver state-of-the-science reports and methods to EPA and other stakeholders for risk management of fuel oxygenates; organic and inorganic contamination of sediments, groundwater and/or soils; and oil spills. Goal Met.</p> <p><i>Performance Measure:</i></p> <p>Complete draft of the FY 2002 Annual Superfund Innovation Technology Evaluation (SITE) Report to Congress.</p>		

APG 3.7 Scientifically Defensible Decisions for Site Clean-up (continued)		Planned	Actual
FY 2002	<p>Provide at least 6 innovative approaches that reduce human health and ecosystem exposures from dense non-aqueous phase liquids and methyl-tertiary butyl ether in soils and groundwater, and from oil and persistent organics in aquatic systems. Goal Met.</p> <p>Performance Measure:</p> <p>Deliver the Annual SITE Program Report to Congress detailing 4-6 innovative approaches, their cost savings and future direction; reports summarizing pilot scale evaluation of in situ remedies for solvents.</p>		
FY 2001	<p>Provide technical information to support scientifically defensible and cost-effective decisions for cleanup of complex sites, hard-to-treat wastes, mining, oil spills near shorelines, and Brownfields to reduce risk to human health and the environment. Goal Not Met.</p> <p>Performance Measure:</p> <p>Deliver the Annual SITE Program Report to Congress.</p>		0
<p>FY 2004 Result: In FY 2004 EPA completed and submitted for publication 3 reports describing the performance of conventional remedies for contaminated sediments for use by remedial project managers in determining the feasibility of various remedial approaches. These reports will help reduce the uncertainty associated with remedy selection and identify the methods that efficiently chart remedy performance over time. EPA's reports respond to a National Research Council report recommending that "long-term monitoring and evaluation of PCB-contaminated sediment sites should be conducted to evaluate the effectiveness of the management approach and to ensure adequate continuous protection of humans and the environment."¹⁴</p> <p>A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 33.</p>			

**ASSESSMENT OF IMPACTS OF FY 2004 PERFORMANCE ON FY 2005 ANNUAL PLAN:
THE GOAL HIGHLIGHTS PRECEDING THE FY 2004 PERFORMANCE RESULTS PROVIDE A DISCUSSION OF
CHANGES AND DIRECTIONS FOR THE FUTURE OF SEVERAL PROGRAMS.**

FY 2003 Annual Performance Goals

(No Longer Reported for FY 2004)

- Oil facilities in compliance with spill prevention, control and countermeasure provisions of oil pollution prevention regulations.
- Maximize all aspects of potentially responsible party (PRP) participation which includes maximizing PRP work at 70% or the new remedial construction starts at non-Federal facility Superfund sites, and emphasize fairness in the enforcement process.

NOTES

- 1 Statutory authorities can be found in the FY 2004 Annual Performance Plan and Congressional Justification <http://www.epa.gov/ocfopage/budget/2004/g05final.pdf>.
- 2 U.S. EPA, Office of Solid Waste and Emergency Response. *Contaminated Sediment Remediation Guidance for Hazardous Waste Sites*. (OSWER 9355.0-85 Draft). Washington DC. (2004)
- 3 U.S. EPA, Office of Research and Development. *The Superfund Innovative Technology Evaluation Program: Annual Report to Congress FY 2002*. (EPA/540/R-03/502). Washington DC: Government Printing Office. (2004). For more information about EPA's SITE program, see <http://www.epa.gov/ORD/SITE/>
- 4 General information for the revitalization program is found at <http://www.epa.gov/swerrims/landrevitalization/index.htm>.
- 5 For more information on the EPA/Pennsylvania agreement, go to <http://www.epa.gov/reg3hwmd/newsletters/2004-04-21.htm>.
- 6 For additional information, refer to June 21, 2004 OSWER/Federal Facilities Restoration and Reuse Office documents: Federal Environmental Work Group issue papers entitled RCRA/CERCLA Overlap, Joint Mine Waste Repository, and Lead Agency Designation (June 21, 2004).
- 7 Additional information on the One Cleanup Program may be found at <http://www.epa.gov/oswer/onecleanupprogram/index.htm>.
- 8 U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response. February 2004. *Resource Conservation Challenge: A Year of Progress*. EPA530-R-04-001. Washington, D.C. Available at <http://www.epa.gov/epaoswer/osw/conserved>. Priority chemicals activities discussed in Goal 5 are an important component of the RCC partnership. Additional information on the Resource Conservation Challenge may be found at <http://www.epa.gov/epaoswer/osw/conserved>.
- 9 Refer to *Sustained Progress in Addressing Management Issues* available at <http://www.epa.gov/ocfo/finstatement/2004ar/2004ar.htm>.
- 10 Links to various reports and workgroups may be accessed at the Superfund cleanup program's main site <http://www.epa.gov/superfund/>.
- 11 Memorandum from Cliff Rothenstein, Director, EPA Office of Underground Storage Tanks to Underground storage Tanks/Leaking Underground Storage Tanks Division Directors in EPA Regions 1-10, May 13, 2004, "Semi Annual (Mid-Year) Activity Report."
- 12 Memorandum from Cliff Rothenstein, Director, EPA Office of Underground Storage Tanks to Underground storage Tanks/Leaking Underground Storage Tanks Division Directors in EPA Regions 1-10, May 13, 2004, "Semi Annual (Mid-Year) Activity Report."
- 13 U.S. Environmental Protection Agency, Office of Research and Development. March 2004. *Minergy Corporation Glass Furnace Technology Evaluation; Innovation Technology Evaluation Report*. EPA 540/R-03/500. Cincinnati, OH. Available at <http://www.epa.gov/ORD/SITE/reports/540r03500/540r03500.html>.
- 14 National Research Council. *A Risk Management Strategy for PCB-Contaminated Sediments*. 2001. National Academy Press. Washington, DC.

GOAL 4: Healthy Communities and Ecosystems



Protect, sustain, or restore the health of people, communities, and ecosystems using integrated and comprehensive approaches and partnerships.

EPA's work to achieve healthy communities and ecosystems encompasses a variety of programs and projects across the Agency and relies on both regulatory and collaborative approaches. To accomplish its objectives under Goal 4, EPA screens and manages chemicals and pesticides, restores and redevelops contaminated properties and communities, works to make America's most significant water bodies safe for swimming and fishing, and conducts cutting-edge research to bring the best scientific expertise to bear on the nation's environmental challenges.

CHEMICALS AND PESTICIDES

EPA is committed to preventing risks from new chemicals and pesticides entering the environment, as well as to addressing legacy issues from old bad actors. The Agency reviews new chemicals and pesticides before they are put on the market, reassesses older chemicals and pesticides already in use, and takes appropriate action should they pose unac-

ceptable risks. EPA has now screened over 22 percent of the more than 76,000 commercial and/or industrial chemicals in the U.S. inventory.¹

WASHINGTON STATE TESTS PESTICIDE-EXPOSED WORKERS

The Washington Departments of Agriculture, Health, and Labor and Industries tested farm workers to determine their cholinesterase levels. Certain pesticides may lower the normal protective levels of cholinesterase, affecting the nervous system and causing symptoms from headaches, blurred vision, and diarrhea to breathing difficulties and death in severe cases. Testing can detect levels of concern prior to the onset of symptoms. As of June 2004, about 2,600 pesticide-exposed workers were tested, and 27 farm workers had severely depressed cholinesterase levels and needed to avoid further exposure.



Recent studies have raised concerns about the toxicological risks presented by certain commercial or industrial chemicals. Perfluorooctane sulfonate, for example, has been documented to be extensively distributed and persistent in humans and wildlife. And household and industrial applications for many such organic fluorochemicals are increasing: perfluorooctanoic acid is used in surfactant coatings for fabrics and paper products, fire-fighting foams, electronic etching baths, and insecticides. In addition, brominated fire retardants (BFRs) are widely used in consumer products to pre-

vent fire-related injury and property damage. Recently, polybrominated diphenyl ethers (PBDEs), a type of BFR, were found to be persistent in the environment and capable of accumulating in animal, fish, and human tissue.

MERCURY CONTAMINATION: HOW EFFECTIVE ARE REGULATIONS?

In November 2003, Dr. Thomas Atkeson presented the results of a decade-long study of regulatory efforts to reduce local and regional mercury emissions. Sponsored by the Florida Department of Environmental Protection and EPA, the study found that regulatory efforts translated into dramatic environmental benefit, particularly for high methylmercury-contaminated areas.⁴ From 1991–99, mercury emissions in south Florida declined by 92 percent, and mercury levels in Everglades' wildlife declined by 60–70 percent. The declines are associated with state and federal regulatory efforts taken in the mid-1990s to address outdated municipal and medical waste incinerators in south Florida and pollution prevention efforts taken in the late 1980s that reduced mercury going into incinerators.



A major research effort is underway to determine whether PBDEs pose a health risk to humans.²

Increasingly, newer chemicals are being substituted for older chemicals that present known risks. In 2004, EPA provided tools that enable industry to “pre-screen” new chemicals for adverse effects early in their development, thereby saving costs, promoting stewardship, and enhancing environmental protection. EPA also accelerated the review of older chemicals, to date recording active test development for 2,200 high-production-volume chemicals, or 92 percent of those with incomplete hazard screening data.³

Similarly, new pesticides are being registered that provide alternatives to older, often riskier pesticides. In 2004, EPA met new standards for efficiency and new deadlines under the Pesticide Registration Improvement Act of 2003, allowing innovative and safer pesticide products to reach the marketplace quickly. During 2004, for example, EPA registered a new active ingredient alternative for methyl bromide, a substance that is known to deplete the ozone layer and is scheduled for phase-out. The deadline for reassessing all 9,721 tolerances for older pesticides is less than 2 years away; EPA has now completed over 69 percent of the reassessments, greatly increasing the safety of America's food supply.

EPA is also making progress in protecting children's health. For example, follow-on actions to changes in the registration for one older pesticide, chlorpyrifos, have reduced its use by 50 percent, virtually eliminating it from

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT MAKES \$1,000,000 LOAN TO CLEAN UP FREDERICKSON PARK LANDFILL

The City of South Bend borrowed \$1,000,000 from the Indiana Department of Environmental Management's Brownfields Cleanup Revolving Loan Fund program to assist with costs incurred in cleaning up the 16-acre Frederickson Park Landfill, which accepted wastes from the 1930s to the early 1970s. The City of South Bend plans to redevelop the site into the Frederickson Park Environmental Education Center to enrich the city's environmental stewardship programs. The redevelopment project has been a cooperative effort between the city, the University of Notre Dame, South Bend's Community School Corporation, and local neighborhood organizations.



areas where children may be exposed, such as residences, schools, and parks. The incidence of childhood lead poisoning has been halved since the early 1990s.⁵ In 2004, EPA began to focus its outreach and evaluation efforts on remaining “hot spots,” which are often disadvantaged urban areas, where the incidence of childhood lead poisoning remains high.

RESTORING COMMUNITIES

In addition to preventing potential new risks to the environment, EPA is working to protect and restore communities affected by past contamination. The Agency provides states, tribes, local governments, and stakeholders with the tools and financial assistance they need to assess, clean up, and redevelop brownfields properties. In 2004, EPA awarded \$69.3 million in brownfields grants in 42 states and Puerto Rico. The grants included 150 Assessment Grants, 15 Revolving Loan Fund Grants, 16 Job Training Grants, and 75 Cleanup Grants. In 2004, EPA also distributed \$49.7 million among all 50 states, the District of Columbia, 3 territories, and 40 tribes to develop or enhance the infrastructure and capabilities of their response programs. From 1995 through March 2004, EPA grantees assessed 4,880 brownfields properties, leveraging \$6.6 billion in clean up and redevelopment funding and 29,600 jobs. Additionally EPA has conducted 1,167 targeted brownfields assessments.

COMMUNITY AND GEOGRAPHICAL INITIATIVES

EPA collaborates with other nations; state, tribal, and local governments; and community groups, industry, and other stakeholders to address geographic and local issues.

More than 30 million people live in the Great Lakes basin, and their daily activities—from water consumed to waste returned—directly affect Great Lakes environments. On May 18, 2004, President Bush signed an Executive Order directing



Administrator Leavitt to establish the Great Lakes Federal Task Force, comprising nine Cabinet members, the Army Corps of Engineers, and the Council on Environmental Quality, to coordinate the federal effort to improve water quality in the Great Lakes. The Order calls for regional

Administrator Leavitt heads Great Lakes Federal Task Force

collaboration to develop action plans that address priorities, identify resource needs, develop an implementation schedule, and facilitate a cohesive management process.⁶

The health of the nation’s estuaries depends in part on maintaining high-quality habitat. In FY 2004, EPA protected and restored over 107,000 acres of estuarine habitat within the 28 estuaries of the National Estuary Program (NEP),⁷ helping these estuaries to support healthy populations of wildlife and marine organisms and to perform

the economic, environmental, and aesthetic functions on which coastal populations depend for their livelihood. In 2004, the President announced an aggressive new national goal to achieve an overall increase in America's wetlands: over the next 5 years, 6,000 acres of restoration and 6,000 acres of enhancement (an average of 1,200 acres per

107,000 acres of estuarine habitat protected

year in each category).⁸ EPA believes that emphasizing aquatic habitat protection through such mechanisms as the NEP, non-point source management, source water protection, and watershed management, will enable us to achieve this goal. EPA is also committed to improving wetland-tracking systems to accurately report wetland acres enhanced and restored.

GREEN POWER: LANDFILL GAS-TO-ENERGY

BMW Manufacturing implemented an EPA Region 4 suggestion to pipe methane gas generated from decomposing trash in the neighboring Palmetto Landfill to its manufacturing plant. BMW found the landfill's methane gas supplies 25 percent of its energy needs, which is equivalent to the amount necessary for heating 15,000 homes a year. BMW's conversion of landfill-generated waste into an energy resource has resulted in a reduction of carbon dioxide emissions equivalent to the removal of 61,000 cars from U.S. highways each year. This successful project has improved local air quality and has reduced the purchase and consumption of natural gas and electricity.⁹

As a result of wet weather in 2003, EPA intensified efforts to reduce nutrient and sediment pollution in Chesapeake Bay.

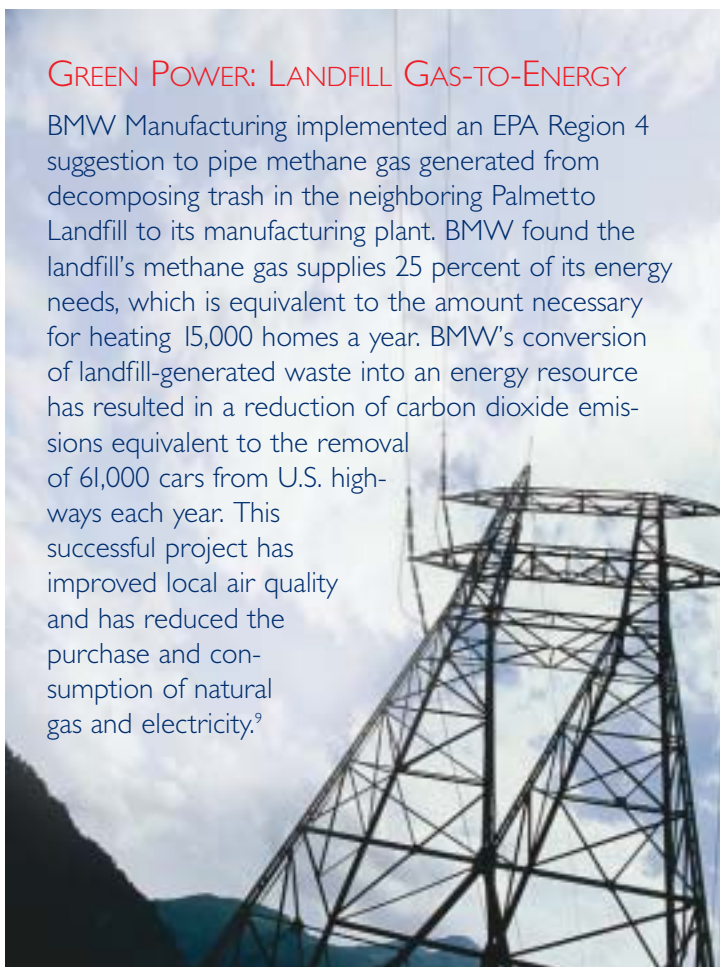
In Chesapeake Bay in 2003, EPA measured 64,709 acres of submerged aquatic vegetation (SAV), an important habitat for aquatic life and an indicator of the Bay's health. Record wet weather washed massive amounts of nutrients and sediment into the Bay, resulting in a 30 percent decline in SAV in a single year. To achieve a goal of 185,000 acres of SAV by 2010, EPA will intensify efforts to reduce nutrient and sediment pollution. In 2004, EPA also led efforts to develop an integrated, regional Gulf of Mexico Coastal Ocean Observing System; to develop a plan for detecting, predicting, and forecasting harmful algal blooms in the Gulf of Mexico; and to facilitate access to and exchange of Gulf data.

INTERNATIONAL ACTIVITIES

In 2004, EPA made significant progress toward reducing risks to human health and the environment internationally, initiating work on lead reduction and air monitoring. For example, the Agency is on target to

Seven more countries phased out leaded gasoline—On track to phase out leaded gasoline worldwide by 2008.

achieve the worldwide phase-out of leaded gasoline by 2008.¹⁰ On the African continent, Cape Verde, Ethiopia, Ghana, Mauritius, Mauritania, Nigeria, and Rwanda have phased lead out of their gasoline, reducing the exposure of more than 117 million people to



STOCKPILES OF USED TIRES ALONG THE U.S.–MEXICO BORDER

Along the U.S.-Mexico Border, massive stockpiles of waste tires pose health risks to people living in surrounding communities. The tires represent a significant waste management problem, offering breeding grounds for mosquitoes, rodents, and other disease carriers and causing severe air quality issues when noxious fumes emitted from the piles ignite. Under the Border 2012 Program, EPA and the Mexican government are working jointly to reduce land contamination by eliminating three major tire stockpiles by 2012. They have reached an agreement to dispose of 800,000 used tires per year over the next 5 years in environmentally safe cement kilns in the Juarez area, providing an alternative source of energy (tire-derived fuel). In addition, more tires will be crumbled for alternative uses such as road paving. Reusing waste tires eliminates the stockpiles and reduces health risks while making productive use of this material.



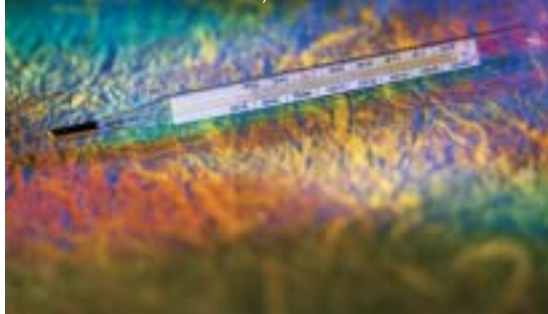
the toxic effects of lead. Under another collaborative international effort, EPA worked with the California Air Resources Board and the India Ministry of Environment and Forests to develop a detailed inventory of air emissions for Pune, India, where dangerously high levels of particulate matter are endangering the health of Pune's 2.5 million inhabitants. The Pune emission inventory represents a critical step in developing effective strategies for reducing air pollution, and it is serving as a model for two of India's largest cities, Kolkata and Mumbai, which together are home to 29.6 million inhabitants.¹¹

SCIENCE AND RESEARCH

EPA continues to break new scientific ground in the area of biomarkers, indicators that can be used to measure the exposure or effects of environmental agents. With the Centers for Disease Control, EPA is funding a National Academy of Sciences report on biomonitoring that will identify key principles and uncertainties in estimating and interpreting health risks from environmental contaminants. To support the Agency's Report on the Environment, EPA research also identified human health and environmental indicators for measuring environmental progress.¹² Many of the environmental indicators used in the Report on the Environment were derived from EPA's Environmental Monitoring and Assessment Program, which pioneered the concept of probabilistic, statistically valid monitoring using a set of consistent indicators.¹³

HOSPITALS FOR A HEALTHY ENVIRONMENT

Working under an FY 2002 Pollution Prevention demonstration grant from Region 5, the Minnesota Technical Assistance Program (MnTAP) used tools developed by the Hospitals for a Healthy Environment Program (H2E), including Chemical and Solid Waste Minimization Plans, to demonstrate the effectiveness of pollution prevention at health care facilities. As a result of MnTAP's work, at least 34 Minnesota healthcare facilities (22 percent of Minnesota hospitals) are engaged in documented P2 efforts. Thirteen facilities have signed on as H2E partners, and 29 have eliminated 75 percent of their mercury or working toward that goal. These facilities have eliminated 394 pounds of mercury, 851 gallons of hazardous chemicals, and 250,000 pounds of solid waste, and they have saved \$152,600.



SAFELY MANAGING OBSOLETE AND PROHIBITED PESTICIDES IN THE ARCTIC

EPA and Arctic Nations have established a cooperative project to address stockpiles of obsolete and prohibited pesticides in the Arctic. A part of the Arctic Council Action Plan, this international project is assisting Russia in managing its extensive stocks (over 35,000 metric tonnes) of Soviet Era obsolete and prohibited pesticides in an environmentally safe manner. Many of these stockpiled pesticides are migrating great distances; pesticides have been found in Alaska, affecting indigenous peoples' subsistence foods.¹⁴

Arkhangelsk, located at the Arctic Circle on the White Sea, served as the demonstration region for the project. By the completion of this demonstration project in 2004, all 63 metric tonnes of Arkhangelsk's stock of obsolete pesticides had been inventoried, analyzed for heavy metals and chlorinated compounds, repackaged, and moved to safe temporary storage awaiting destruction. The Arkhangelsk model is being implemented in ten other Arctic regions.



Federal, state, and local emergency personnel also rely on EPA to develop approaches that will aid decision making in the event of a terrorist attack. In 2004, EPA research scientists and engineers developed information and tools to help detect the intentional introduction of chemical or biological contaminants in buildings or water systems, contain these contaminants, decontaminate buildings and/or water systems, and dispose of material after cleanups. EPA

also assessed the vulnerabilities and technical challenges facing the water industry. The Water Security Research and Technical Support Action Plan, released in 2004, focuses on protecting water systems from threats by identifying contaminants in drinking water systems and developing effective decontamination products and options for disposal.¹⁵ The plan also presents information on risks and potential impacts on human health.

GOAL 4: HEALTHY COMMUNITIES AND ECOSYSTEMS

Annual Performance Goals Met: **12**
 Annual Performance Goals Not Met: **7**
 Data Available After 11/5/04: **4**

FY2004 Obligations (in thousands):

EPA Total: \$10,155,381
 Goal 4: \$1,212,345
 Goal 4 Share of Total: 11.9%

FY2004 Costs (in thousands):

EPA Total: \$8,837,375
 Goal 4: \$1,143,190
 Goal 4 Share of Total: 12.9%

STRATEGIC OBJECTIVE: PREVENT AND REDUCE PESTICIDE, CHEMICAL, AND GENETICALLY ENGINEERED BIOLOGICAL ORGANISM RISKS TO HUMANS, COMMUNITIES, AND ECOSYSTEMS. FY 2004 Cost (in thousands): \$417,571 (36.5% of FY 2004 Goal 4 Total Costs)

Progress Toward Strategic Objective: EPA uses a wide range of approaches to preventing and reducing risks from chemicals. More than 76,000 chemicals are identified in the TSCA chemical inventory, and they impact every aspect of our daily life. Pesticides are applied to food, or people may be exposed to them through the workplace or at home. EPA reviews every new chemical or pesticide that enters the marketplace.

At the end of 2004, EPA is on track to complete long-term goals for reviewing every pesticide tolerance needing reassessment, as well as all reregistrations. Organophosphate residues and poisonings are decreasing as a result of actions and outreach on the use of alternatives to these older, riskier pesticides. New registrations also reduce potential risk. One example is a biopesticide registered in 2004 to be used against mosquito larvae in aquatic environments. It helps protect the public from disease such as the West Nile Virus; it also avoids the potential for polluting surface water while controlling mosquitoes. EPA continues to seek means to reduce review cycles for its regulatory decisions, thus making newer, less risky pesticides accessible to the public quicker and in greater quantity. For example, in 2004 the pesticides program revised the review process for health risk assessments, flagging resource intensive and/or low risk chemicals early in the process and reducing multiple critical decision points.

Chemicals that have been on the marketplace since before EPA reviews began—a bit more than 75% of the total—must also be screened for potential risks. EPA exceeded 2004 targets for closing the gap in publicly available risk screening data for more than 2,200 chemicals produced or imported in quantities of 1 million pounds per year and substantially expanded knowledge of the risks associated with chemicals encountered in everyday life, such as flame retardants and fabric protectors. New tools and processes are making it more efficient to reduce the adverse effects from older chemicals and contaminants already in the environment—things like lead and polychlorinated biphenyls (PCBs). For instance, successful pilot efforts in 2004 to make innovative use of available data sets to target hot spots with high concentrations of cases offer encouragement that EPA and government-wide goals for eliminating incidences of lead poisoning by 2010 will be achieved. Revamping strategies to meet the changing landscape of who's at risk, economic pressures on the affected industry and other evolving factors pave the way for smart and effective action to reduce such risks using the expanding arsenal of regulatory and voluntary tools.

APG 4.1 Review Pesticide Active Ingredients		Planned	Actual
FY 2004	Ensure that through on-going data reviews, pesticide active ingredients and the products that contain them are reviewed to assure adequate protection for human health and the environment, taking into consideration exposure scenarios such as subsistence lifestyles of Native Americans. Goal Not Met.		
	<i>Performance Measures:</i>		
	—Product Reregistration.	400 actions	127

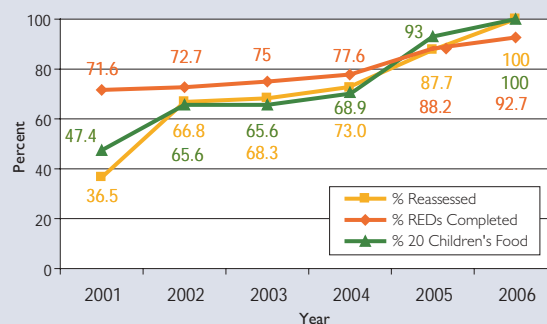
APG 4.1 Review Pesticide Active Ingredients (continued)		Planned	Actual
FY 2004	—Reregistration Eligibility Decision (RED) (cumulative).	81.7%	77.6%
	—Tolerance Reassessment (cumulative).	78%	73.0%
	—Tolerance Reassessments for top 20 foods eaten by children (cumulative).	83%	68.9%
	—Number of inert ingredients tolerances reassessed.	100	28
FY 2003	Assure that pesticides' active ingredients registered prior to 1984 and the products that contain them are reviewed to assure adequate protection for human health and the environment. Also consider the unique exposure scenarios such as subsistence lifestyles of Native Americans in regulatory decisions. Goal Not Met.		
	Performance Measures:		
	—Product Reregistration.	350 actions	306
	—Reregistration Eligibility Decision (RED) (cumulative).	76%	75%
	—Tolerance Reassessment.	68%	68%
	—Tolerance reassessments for top 20 foods eaten by children.	75%	65.6%
FY 2002	Same goal, different targets. Goal Not Met.		
	Performance Measures:		
	—Product Reregistration.	750	314
	—RED (cumulative).	76.4%	72.7%
FY 2002	By the end of 2002 EPA will reassess a cumulative 66% of the 9,721 pesticide tolerances required to be reassessed more than 10 years. This includes 67% of the 893 tolerances having the greatest potential impact on dietary risks to children. Goal Met.		
		66%	66.9%
		67%	65.6%
FY 2001	Same goal, different targets. Goal Not Met.		
		40%	40%
		46%	44%

FY 2004 Result: The Agency did not meet its FY 2004 targets for this goal. Measurements for REDs ; tolerance reassessments; tolerance reassessments for the top 20 foods eaten by children; and the number of inert ingredients with tolerances reassessed began in 1996 when FQPA became effective. The Pesticide Registration Improvement Act (PRIA) of 2003, which became effective on March 23, 2004 stipulates that the universe of 612 REDs be completed by October 2008 and product reregistrations by 2010. Tolerance reassessments, with a universe of 9,721, have a statutory deadline for completion in August 2006.

Product reregistrations are based on the REDs completed in previous years. Product reregistrations are generally completed 2 years after the RED is done. EPA has not met its REDs targets in earlier years, therefore it did not meet its product reregistration targets for FY 2004. It should also be noted that

the previously reported planned target of 750 actions for product reregistrations is in error; the target, which is an estimate, should have been 400. Additionally, determining a target is difficult because there is no fixed target for products eligible for reregistration because the number of products that need registration/reregistration changes with each request for registration, and with each action taken in reregistration. For example, if there is a request for a new use for a product, or if a RED is issued to reregister a pesticide, then the associated products become eligible for reregistration, thereby changing the universe of products eligible for reregistration.

Performance Measure: % Tolerance Reassessment and Tolerance Reassessments for Top 20 Foods Eaten by Children Completed (Cumulative) and % Registration Eligibility Decisions Completed (Cumulative)



APG 4.1 Review Pesticide Active Ingredients *(continued)*

Despite having not met its targets in previous years, the Agency is committed to meeting its 2008 deadline. The reregistration program is continuing to review data and issue REDs while examining means to streamline activities and consolidate resources.

In FY 2004, EPA completed 17 REDs for a cumulative total of 475 REDs completed. The Agency is on track to complete all 612 REDs to meet its 2008 statutory deadline.

In FY 2004, EPA reassessed 467 additional tolerances for a cumulative total of 7,093 tolerance reassessments completed. The Agency is on track to complete all 9,721 tolerances to meet its 2006 statutory deadline. Meeting this goal will help ensure that human health and the environment are protected from the harmful effects of pesticides, and that food remains safe for consumption. Children's tolerances are a smaller subset of the broader category of tolerances. In FY 2004, the Agency reassessed 23 children's tolerances, meeting 68.9% of its planned target of 893. To date, 615 children's tolerances have been reassessed.

In FY 2004, EPA reassessed 28 inert ingredients tolerances/tolerance exemptions. To date 445 have been reassessed. The Agency is on track to complete all 870 inert ingredient tolerances to meet its statutory 2006 deadline.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, pages 33-34.

APG 4.2 Decrease Risk from Agricultural Pesticides		Planned	Actual
FY 2004	<p>Decrease adverse risk from agricultural uses from 1995 levels. Goal Not Met.</p> <p><i>Performance Measures:</i></p> <ul style="list-style-type: none"> —Register safer chemicals and biopesticides (cumulative). —New Chemicals (cumulative). —New Uses (cumulative). —Percentage of acre-treatments with reduced risk pesticides. —Occurrences of residues on a core set of 19 foods eaten by children relative to occurrence levels for those foods reported in 1994-1996. 	<p>131</p> <p>74</p> <p>3,079</p> <p>8.5%</p> <p>25%</p>	<p>143</p> <p>79</p> <p>3,142</p> <p>Data avail 12/04</p> <p>34%</p>
FY 2003	<p>Decrease adverse risk from agricultural uses from 1995 levels and assure that new pesticides that enter the market are safe for humans and the environment through ensuring that all registration actions are timely and comply with standards mandated by law. Goal Not Met.</p> <p><i>Performance Measures:</i></p> <ul style="list-style-type: none"> —Register safer chemicals and biopesticides (cumulative). —New Chemicals. —New Uses. —Percentage of acre treatments with reduced risk pesticides. —Occurrences of residues on a core of 19 foods eaten by children relative to occurrence levels for those foods reported in 1994-1996. 	<p>118</p> <p>67</p> <p>350</p> <p>8.1%</p> <p>20%</p>	<p>124</p> <p>72</p> <p>425</p> <p>8.0%</p> <p>34.3%</p>
FY 2002	<p>Same goal, different targets. Goal Met.</p> <p><i>Performance Measure:</i></p> <p>Register safer chemicals and biopesticides (cumulative).</p>	<p>105</p>	<p>107</p>
FY 2002	<p>Detections of residues of carcinogenic and cholinesterase inhibiting neurotoxic pesticides on foods eaten by children will have decreased by 15% (cumulative) from their average 1994 to 1996 levels. Goal Met.</p>	<p>15%</p>	<p>20%</p>

APG 4.2 Decrease Risk from Agricultural Pesticides (continued)		Planned	Actual																												
FY 2002	At least 1% of acre-treatments will use applications of reduced risk pesticides. Goal Met.	1%	7.5%																												
FY 2001	Same goal, different targets. Goal Not Met. Performance Measure: Register safer chemicals and biopesticides.	96	92																												
<p>FY 2004 Result: The baseline is zero for registration of reduced risk pesticides, new chemicals, and new uses, beginning in 1996, the year FQPA was enacted. Progress is measured cumulatively since 1996. The baseline for acres-treated is 3.6% of total acreage in 1998, when the reduced-risk pesticide acre-treatments was 30,332,499 out of a total (all pesticides) of 843,063,644 acre- treatments. Each year's total acre-treatments, reported by Doane Marketing, Inc. with USDA's National Agricultural Statistical Survey serve as the basis for computing the percentage of acre- treatments using reduced risk pesticides. Acre-treatments count the total number of pesticide treatments each acre receives each year. Information on the percentage of acre-treatments will be analyzed and available by December 2004. The baseline for residues on children's foods is the occurrence on 33.5% of composite sample of children's foods in the baseline years 1994- 1996. FY 2003 results were not known in time to adjust the FY 2004 target. After 2 years of experience in analyzing the data, the measure has been determined to be too general with too many variables from year to year in order to provide a consistent, reliable trend. Information is being reviewed to determine a more appropriate measure.</p> <p>A description of the quality of the data used to measure EPA's performance can be found in Appendix B, pages 34-35.</p> <p>FY 2003 Result Available in FY 2004: EPA missed its FY 2003 goal. Actual detections of pesticide residues on foods eaten by children went up (from 33.1% in 2002 to 34.3% in 2003), however, it is unclear whether this is due to the different foods analyzed, number of samples analyzed, pesticides analyzed for, or a combination of all variables. Information is being reviewed to determine a more appropriate measure. The slight miss on acre treatments had no effect on overall program activity or performance.</p>																															
<p style="text-align: center;">Decrease Risk from Agricultural Pesticides</p> <table border="1"> <caption>Data for Decrease Risk from Agricultural Pesticides Graph</caption> <thead> <tr> <th>Year</th> <th>Cumulative New Uses</th> <th>Cumulative Registrations</th> <th>Cumulative New Chemicals</th> </tr> </thead> <tbody> <tr> <td>2001</td> <td>189.6</td> <td>92</td> <td>53</td> </tr> <tr> <td>2002</td> <td>232.9</td> <td>107</td> <td>60</td> </tr> <tr> <td>2003</td> <td>275.4</td> <td>124</td> <td>72</td> </tr> <tr> <td>2004</td> <td>306.9</td> <td>143</td> <td>79</td> </tr> <tr> <td>2005</td> <td>347.9</td> <td>136</td> <td>84</td> </tr> <tr> <td>2006</td> <td>387.9</td> <td>138</td> <td>94</td> </tr> </tbody> </table>				Year	Cumulative New Uses	Cumulative Registrations	Cumulative New Chemicals	2001	189.6	92	53	2002	232.9	107	60	2003	275.4	124	72	2004	306.9	143	79	2005	347.9	136	84	2006	387.9	138	94
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APG 4.3 Exposure to Industrial/Commercial Chemicals		Planned	Actual
FY 2004	Reduce exposure to and health effects from priority industrial/commercial chemicals. Performance Measures: —Certified nationally to perform lead-based paint abatement. —Children aged 1-5 years with elevated blood lead levels (>10ug/dl). —Safe disposal of transformers. —Safe disposal of capacitors. —Number of participants in Hospitals for a Healthy Environment (cumulative).	18,000 270K 8,000 6,000 2,000	24,000 Data avail 2005 Data avail 2006 Data avail 2006 2,930
FY 2003	Reduce lead exposure in housing units and in the deleading of bridges and structures. Goal Met. Performance Measure: Certified nationally (federally-administered and state-administered program).	5,000	5,561

APG 4.3 Exposure to Industrial/Commercial Chemicals (continued)		Planned	Actual																														
FY 2002	Implement certification and training of lead abatement professionals. <i>Goal Met.</i>																																
	Performance Measure: Certified nationally (federally-administered and state-administered program).	4,000	4,574																														
FY 2004 Result: EPA substantially exceeded its goal of certifying national users to perform lead-based paint abatement.																																	
<p>National Health and Nutrition Examination Survey (NHANES) data are currently released in two year data sets. 1999-2000 NHANES data, released in January 2003, estimated 434,000 children with elevated blood lead levels, a steep reduction of the estimate of more than 900,000 cases in the early 1990s. EPA expects to be able to update this estimate through 2002 in 2005, providing additional evidence of progress towards the government-wide goal of virtually eliminating childhood lead poisoning by 2010.</p> <p>CY 2004 data will not be available until mid-2006. Recently released 2002 data indicate a continuation of an improving trend. EPA is nonetheless expanding efforts to promote voluntary early retirement of high concentration PCB transformers to reduce the risks of exposure through accidents and equipment breakdowns.</p> <p>CY 2004 data will not be available until mid-2006. CY 2002 results were released in January 2004. The figures show a total of 2,204 large capacitors safely disposed of annually. CY 2003 results will not be reported until 2005. The current industrial disposals, downward trend is of concern and is under investigation. Investigations are being made into data quality issues. Additionally, successful pilot programs are being scaled up to retire PCB containing equipment.</p> <p>Participation in the H2E program throughout the healthcare sector continued to increase, exceeding expectations for 2004. Increased participation in H2E improves environmental results through reduced use of mercury and reduced generation of mercury-containing healthcare and total healthcare waste.</p> <p>A description of the quality of the data used to measure EPA's performance can be found in Appendix B, pages 35-36.</p>																																	
<div><div><h3>Elevated Blood Lead Levels in Children</h3><table><thead><tr><th>Year</th><th>Actual (Thousands)</th><th>Target (Thousands)</th></tr></thead><tbody><tr><td>1994</td><td>890,000</td><td>-</td></tr><tr><td>1999-2000</td><td>434,000</td><td>-</td></tr><tr><td>2004</td><td>-</td><td>270,000</td></tr><tr><td>2008</td><td>-</td><td>90,000</td></tr><tr><td>2010</td><td>-</td><td>0</td></tr></tbody></table></div><div><h3>Hospitals for Healthy Environment, 2002-2004</h3><table><thead><tr><th>Fiscal Year</th><th>Planned</th><th>Actual</th></tr></thead><tbody><tr><td>2002</td><td>200</td><td>338</td></tr><tr><td>2003</td><td>1,000</td><td>1,915</td></tr><tr><td>2004</td><td>2,000</td><td>2,930</td></tr></tbody></table></div></div>				Year	Actual (Thousands)	Target (Thousands)	1994	890,000	-	1999-2000	434,000	-	2004	-	270,000	2008	-	90,000	2010	-	0	Fiscal Year	Planned	Actual	2002	200	338	2003	1,000	1,915	2004	2,000	2,930
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2002	200	338																															
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APG 4.4 Process and Disseminate Toxics Release Inventory (TRI) Information		Planned	Actual
FY 2004	The increased use of the TRI-Made Easy (TRI-ME) will result in a total burden reduction of 5% for Reporting Year 2003 from Reporting Year 2002 levels. <i>Goal Not Met.</i>	50%	36%
	Performance Measure: Percentage of TRI chemical forms submitted over the Internet using TRI-ME and the CDX.	50%	38%
FY 2003	Expanded information on releases and waste management of lead and lead compounds will be reported by 8,000 facilities in TRI in Reporting Year 2001 and increased usage of TRI-ME will result in total burden reduction of 25% for Reporting Year 2002. <i>Goal Met.</i>	8,000 25%	8,561 25%

APG 4.4 Process and Disseminate Toxics Release Inventory (TRI) Info. (continued)

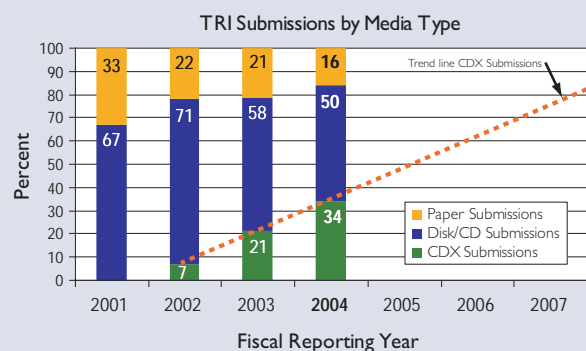
		Planned	Actual
FY 2002	EPA will reduce reporting burden, improve data quality, lower program costs, and speed data publication by increasing the amount of TRI electronic reporting from 70% to 85%. <i>Goal Met.</i>	85%	92%

FY 2001	Process all submitted facility chemical release reports; publish annual summary of TRI data; provide improved information to the public about TRI chemicals; and maximize public access to TRI information. <i>Goal Met.</i>		
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Performance Measures:

—TRI Public Data Release.	1 report	1 report
—Chemical submissions and revisions processed.	110,000	120,000

FY 2004 Result: Information on toxic chemical releases is needed to assist communities in making informed decisions about protecting their environment. In June 2004, the Agency released the Toxics Release Inventory (TRI) annual Public Data Release (PDR) report that contains information on toxic chemical releases and other waste management activities by certain industries, as well as by federal facilities. EPA is continuing to focus resources on modernization of TRI data collection, processing, and dissemination processes with the goal of releasing more reliable information sooner to all communities. As an aid to the reporting community and to improve data collection accuracy and efficiency, EPA introduced TRI-Made Easy (TRI-ME) software in FY 2001. In FY 2004, 92% of all reporting facilities used TRI-ME to prepare their submissions. Comparing FY 2004 to FY 2003, there was a 50% increase in the number of reports on chemical releases and other waste management data submitted to EPA via the internet and EPA's Central Data Exchange (CDX). However, even with this sizable increase, only 36% of all chemical forms were submitted using CDX, short of the FY 2004 goal of 50%. EPA is aggressively working to increase the CDX submissions through various efforts such as targeted training and outreach to the reporting community. A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 43.

**APG 4.5 Risks from Industrial/Commercial Chemicals**

		Planned	Actual
FY 2004	Identify, restrict, and reduce risks associated with industrial/commercial chemicals.		
	Performance Measures:		
	—TSCA pre-manufacture notice reviews (annual).	1,700	1,377
	—Number of Notice of Commencements (NOCs) received as percentage of total number of chemicals in TSCA inventory (cumulative).	22.6%	22.8%
	—Make screening level health and environmental effects data publicly available for sponsored HPV chemicals (cumulative).	1,300	1,309
	—Annual number of TSCA Section 5 Pre-Manufacturer Notices (PMNs) received self-audited using complete battery of P2 Framework/PBT Profiler screening tools.	40	71
	—Reduction in current year production-adjusted risk screening environmental indicators risk-based score of releases and transfers of toxic chemicals.	2%	Data avail 2006
	—Cumulative number of chemicals for which AEGL values proposed.	128	134
	—High Production Volume chemicals with complete Screening Information Data Sets (SIDS) submitted to OECD SIDS Initial Assessment Meeting (annual).	75	98

APG 4.5 Risks from Industrial/Commercial Chemicals (continued)		Planned	Actual
FY 2003	Of the approximately 1,800 applications for new chemicals and microorganisms submitted by industry, ensure those marketed are safe for humans and the environment. Increase proportion of commercial chemicals that have undergone pre-manufacture notice review to signify they are properly managed and may be potential green alternatives to existing chemicals. Goal Met.	1,800	1,633
FY 2002	Same goal. Goal Met.	1,800	1,943
FY 2001	Same goal. Goal Met.	1,800	1,770
FY 2003	Provide information and analytical tools to the public for accessing the risk posed by toxic chemicals. Goal Met. Performance Measure: Make existing screening level health and environmental effects information and plans to develop needed data publicly available for high production volume (HPV) chemicals sponsored in the US HPV Challenge.	1,200	1,235
FY 2002	Same goal. Goal Met.	10% data (280 chemicals)	843 chemicals
FY 2001	EPA will make publicly available data from test plans submitted by industry or chemicals already in commerce. Goal Met. Performance Measure: Through chemical testing program, obtain test data for HPV chemicals on master testing list.	800	724 chemicals

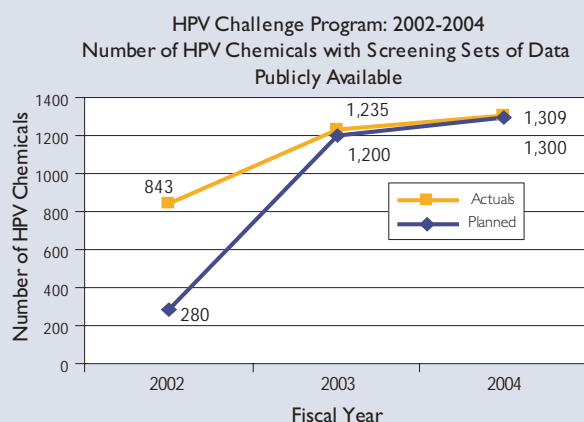
FY 2004 Result: PMN submissions are not controlled by EPA, fluctuating from year to year, and do not reflect the program's success in meeting its goal of preventing introduction of new unreasonable risks associated with entry of new chemicals into commerce. Accordingly this measure will be tracked internally commencing in FY 2005 as an input to assessments of the PMN Review Program's efficiency, and replaced with an outcome measure tracking success in meeting the program's goal.

EPA has made substantial progress in the New Chemicals Program reviewing chemicals in commerce to assess risks and ensure controls are in place. At the end of FY 2004, 22.8% of all chemicals in commerce had been assessed for risks.

EPA met the target of making screening level health and environmental effects data publicly available through the HPV website for 1,300 chemicals through 2004. With additional submissions from sponsors expected through the end of the calendar year, the Agency will be approaching completion of the initial data collection for the 1,494 chemicals sponsored by companies planning to submit their data to EPA, setting the stage for risk screening and priority setting for appropriate follow-up actions. The screening process allows EPA to prioritize chemicals in terms of hazard and risk.

EPA exceeded the FY 2004 target for receiving 40 PMN's per year that have been pre-screened by submitters using the full set of P2 Framework and PBT Profiler screening tools. This contributes to increased program efficiency due to the fact that pre-screened PMN submissions are less likely to require the full 90-day PMN review effort, lowering the cost per PMN review. The PMN process prevents the occurrence of new unreasonable human health and environmental risks associated with the entry of new chemicals into U.S. commerce.

The 2004 results will not be available until at least 2006. 2002 results will be available in the first quarter of FY 2005.



APG 4.5 Risks from Industrial/Commercial Chemicals *(continued)* Planned Actual

The Agency exceeded the FY 2004 target of 128 chemicals, as well as the 2008 target of 180 chemicals, with proposed Acute Exposure Guideline (AEGL) values. The program develops short-term exposure limits applicable for a wide range of extremely hazardous substances. Proposed AEGL values are used immediately by first responders in dealing with chemical emergencies, increasing EPA's ability to deal with threats of chemical terrorism and assist with homeland security preparations.

EPA significantly exceeded this measure, reflecting the strong progress being made by the international component of the HPV Challenge program to make SIDS available for all HPV chemicals. Industry sponsors of HPV chemicals are allowed to direct their submissions to either EPA, OECD SIDS or the International Council of Chemical Associations (ICCA). Through EPA's and ICCA's work with voluntary sponsors and EPA's work to issue TSCA Test Rules, the program goal is to make data publicly available on all 2,800 HPV chemicals by 2008.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, pages 36-38.

FY 2003 Result Available in FY 2004: EPA exceeded the target of making screening level health and environmental effects information publically available for 1,200 HPV chemicals. This is an initial step in committing the Agency to eliminate or effectively manage all identified significant risks associated with HPV chemicals.

APG 4.6 Chemical, Organism, and Pesticide Risks Planned Actual

FY 2004 **Standardization and validation of screening assays. Goal Not Met.** **II** **0**

FY 2004 Result: In its projection for FY 2004, EPA stated that it would complete the validation of II Tier I assays. Substantial scientific issues and difficulties arose unexpectedly during validation that impeded EPA's ability to meet this goal. In order to provide more meaningful measures, the Agency will track progress through each stage of the process, rather than reporting only the end product. EDSP has developed five new measures for FY 2006 which include: Detailed Review Papers Completed, Prevalidation Studies Completed, Validation Studies Completed, Peer Reviews, and Assays Ready for Use.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, pages 38-39.

APG 4.7 Chemical, Organism, and Pesticide Risks Planned Actual

FY 2004 **Reduce wildlife incidents and mortalities. Goal Not Met.**

Performance Measure:

Number of incidents and mortalities to terrestrial and aquatic wildlife caused by the 15 pesticides responsible for the greatest mortality to such wildlife (cumulative). **-25%** **Insufficient data for analysis**

FY 2003 **Reduce public and ecosystem risk from pesticides. Goal Not Met.**

Performance Measure:

Number of incidents and mortalities to terrestrial and aquatic wildlife caused by the 15 pesticides responsible for the greatest mortality to such wildlife (cumulative). **-20%** **9%**

FY 2002 **Implementation of 10-15 additional model agricultural partnership projects that demonstrate and facilitate the adoption of farm management decisions and practices that provide growers with a "reasonable transition" away from the highest risk pesticides. Goal Met.** **10-15** **12**

FY 2004 Result: The data received during FY 2004 was reviewed and found insufficient to provide a meaningful analysis. A cooperative agreement is being awarded to the American Bird Conservancy for the development of a database (American Incident Monitoring System-AIMS) in order to collect more meaningful information on avian mortalities to develop a more effective measure.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 39.

APG 4.8 Chemical, Organism, and Pesticide Risks		Planned	Actual
FY 2004	<p>Protect human health, communities, and ecosystems from chemical risks and releases through facility risk reduction efforts and building community infrastructures.</p> <p><i>Performance Measure:</i></p> <p>Risk management plan audits completed.</p>	400	Data avail 2005
<p>FY 2004 Result: Although data will not be available until the first quarter of FY 2005, EPA expects to meet or exceed this target. The RMP program is currently ahead of projections for the FY 2008 goal. Currently, there are approximately 14,400 Risk Management Plans (RMPs) in the RMP database. Each year, since the RMP program began in 1999, EPA's goal is to complete on-site audits of 3% of those facilities in order to determine the completeness and accuracy of the RMP, understand the various processes used in chemical facilities, review the policies, procedures, and processes in place to prevent chemical accidents, and learn from accidents and follow-up actions at RMP facilities. This activity assists EPA in understanding techniques and technology currently used in chemical facilities to prevent chemical accidents and share those with chemical facilities throughout the United States and, in some cases, with other countries. EPA is working toward identifying measures for RMP audits to gain a more complete understanding of improvements in chemical safety resulting from the Risk Management Plan program.</p> <p>A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 39.</p>			

STRATEGIC OBJECTIVE: SUSTAIN, CLEAN UP, AND RESTORE COMMUNITIES AND THE ECOLOGICAL SYSTEMS THAT SUPPORT THEM. FY 2004 Cost (in thousands): \$187,969 (16.4% of FY 2004 Goal 4 Total Costs)

Progress Toward Strategic Objective: In FY 2004 EPA made significant progress towards its goal to sustain, cleanup, and restore communities and the ecological systems that support them. Recent available data show that EPA grantees have assessed 4,880 brownfields properties which enabled the leveraging of \$6.6 billion in clean up and redevelopment funding and 29,600 jobs. EPA has also conducted 1,167 targeted brownfields assessments from 1995 through March 2004. Additionally, adequate drinking water supply and wastewater treatment systems were provided for an additional 291,000 people in the U.S.-Mexico Border area by EPA funding assistance through the Border Environment Cooperation Commission and North American Development Bank. To date, systems have been provided for 1,163,000 people or 117% of the target for FY 2004. EPA is on track to meet the 2005 goal of providing adequate drinking water supply and wastewater treatment systems to 1.5 million people. Additionally, EPA conducted 50 training sessions for 10,000 farm workers on pesticide risks and safe handling, including minimizing risks to families and children.

APG 4.9 Assess and Cleanup Brownfields		Planned	Actual
FY 2004	<p>Assess, cleanup, and promote the reuse of Brownfields properties, leveraging cleanup and redevelopment funding and jobs. Leverage or generate funds through revitalization efforts.</p> <p><i>Performance Measures:</i></p> <p>—Brownfields cleanup grants awarded.</p> <p>—Brownfield properties assessed.</p> <p>—Properties cleaned up using Brownfields funding.</p> <p>—Brownfield property acres available for reuse or continued use.</p> <p>—Jobs generated from Brownfields activities (annual).</p> <p>—Percentage of Brownfields job training trainees placed.</p> <p>—Amount of cleanup and redevelopment funds leveraged at Brownfields sites.</p>	<p>25</p> <p>1,000</p> <p>no target</p> <p>no target</p> <p>2,000</p> <p>65</p> <p>\$0.9B</p>	<p>75</p> <p>Data avail 2005</p> <p>Data avail 2005</p> <p>Data avail 2005</p> <p>Data avail 2005</p> <p>Data avail 2005</p> <p>Data avail 2005</p>

APG 4.9 Assess and Cleanup Brownfields *(continued)* Planned Actual

FY 2003	Assess, cleanup, and promote the reuse of Brownfields properties, leveraging cleanup and redevelopment funding and jobs. Leverage or generate funds through revitalization efforts. Goal Met.		
	Performance Measures:		
	—Amount of cleanup and redevelopment funds leveraged at Brownfields sites.	\$0.9B	\$1.49B
	—Number of Brownfield properties assessed.	1,000	1,052
	—Jobs generated from Brownfields activities (annual).	2,000	5,023
	—Percentage of Brownfields job trainees placed.	65%	62%
FY 2002	EPA will provide additional site assessment funding to 38 new communities, and to 38 existing communities, resulting in a cumulative total of 3,100 properties assessed, the generation of 19,300 jobs, and the leveraging of \$4.0 B in cleanup and redevelopment funds since 1995. Goal Met.	3,100 19,300 \$4.0B	3,807 21,737 \$4.8B
FY 2001	Same goal, different targets. Goal Met.	2,500 properties 12,000 jobs \$3.1B	2,754 17,307 \$3.7B

FY 2004 Result: In FY 2004, the Brownfields Program awarded 75 Clean up Grants. Due to the grant recipient reporting cycle, the Program will not have complete FY 2004 performance data until March 2005. EPA anticipates that it will meet the FY 2005 performance targets.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 40-41.

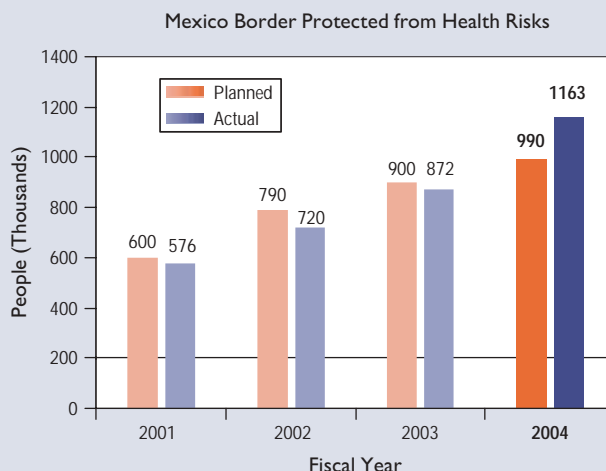
FY 2003 Result Available in FY 2004: In FY 2003 Brownfields grantees reported assessing 1,052 brownfields properties, leveraging 5,023 cleanup and redevelopment jobs and \$1.49 billion in cleanup and redevelopment funding. Brownfields Job Training Grant Recipients placed 62% (meeting 96% of the target) of the program graduates into jobs. This slight miss has no effect on overall program or activity performance.

APG 4.10 US–Mexico Border Water/Wastewater Infrastructure Planned Actual

FY 2004	Increase the number of residents in the Mexico border area who are protected from health risks, beach pollution, and damaged ecosystems from nonexistent and failing water and wastewater treatment infrastructure by providing improved water and wastewater service. Goal Met.		
	Performance Measure:		
	Number of additional people in Mexico border area protected from health risks because of adequate water and wastewater sanitation systems funded through border environmental infrastructure funding.	990,000	1,163,000

FY 2004 Result: In FY 2004 adequate drinking water supply and wastewater treatment systems were provided for an additional 291,000 people in the U.S.-Mexico Border area by EPA funding assistance through the Border Environment Cooperation Commission and North American Development Bank. To date, systems have been provided for 1,163,000 people or 117% of the target for FY 2004. This effort requires considerable coordination among 6 Mexican and 4 U.S. states, municipalities with varying capacity, and 2 international organizations that certify the projects and issue subgrants for individual projects.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 41.



APG 4.11 Mexico Border Outreach		Planned	Actual
FY 2004	Protect the public health and the environment in the US-Mexico border region. Goal Met. <i>Performance Measures:</i> —Increase number of people with adequate water and wastewater sanitation systems. —Train farmworkers on pesticide risks and safe handling, including ways of minimizing families' and children's risks.	990,000 50 sessions	1,163,000 50 sessions
<p>FY 2004 Result: The FY 2004 previously reported planned target of \$1.5 million was in error and should have been 990,000. The cumulative target of 1.5 million is planned for the end of FY2005. The interim target for FY 2004 was 990,000. Projects in FY 2005 are intended to allow access to safe drinking water and wastewater sanitation systems to the remaining approximately 337 thousand people. At the end of FY2004, 78% of the FY 2005 target has been met. Additionally 50 training sessions have been held for approximately 10,000 farmworkers on pesticides handling.</p> <p>A description of the quality of the data used to measure EPA's performance can be found in Appendix B, pages 40-41.</p>			

APG 4.12 Enhanced Institutional Capabilities		Planned	Actual
FY 2004	Enhance environmental management and institutional capabilities in priority countries. Goal Met. <i>Performance Measures:</i> —Assist in the development or implementation of improved environmental laws or regulations in priority countries. —Increase the transfer of environmental best practices among the United States and its partner countries and build the capacity of developing countries to collect, analyze, or disseminate environmental data.	1 country 3 countries	1 country 6 countries
FY 2003	Same Goal, different targets. Goal Met. <i>Performance Measures:</i> —Assist in the development or implementation of improved environmental laws or regulations in priority countries. —Increase the transfer of environmental best practices among the United States and its partner countries and build the capacity of developing countries to collect, analyze, or disseminate environmental data. —Increase the capacity of programs in Africa or Latin America to address safe drinking water quality issues.	1 country 3 countries 1 country	1 country 3 countries 1 country
FY 2002	Same Goal, different targets. Goal Met.	2 3 3	2 3 3
FY 2001	Same Goal, different targets. Goal Met. <i>Performance Measures:</i> —Number of countries or localities (3) that have adopted new or strengthened environmental laws and policies. —Number of organizations (3) that have increased environmental planning, analysis, and enforcement capabilities.	3 3	3 3

APG 4.12 Enhanced Institutional Capabilities (continued)		Planned	Actual
FY 2001 (continued)	—Number of organizations (3) that have increased capabilities to generate and analyze environmental data and other information.	3	3
	—Number of organizations (3) that have increased public outreach and participation.	3	4
	—Number of targeted sectors (3) that have adopted cleaner production practices.	3	2
	—Number of cities (3) that have reduced mobile-source based ambient air pollution concentrations.	3	3
<p>FY 2004 Result: In FY 2004, EPA worked with India's government officials to develop an emission inventory and source apportionment, impacting 3 million Indian citizens. Additionally, six countries (Mexico, Kazakhstan, India, Peru, Kenya, and Vietnam) were provided technical assistance that enhanced air quality and energy efficiency. For example, EPA's diesel retrofit project in Mexico City influenced Pemex, the national oil company to switch to low-sulfur fuel in Mexico City. When fully implemented, switching to low sulfur fuel in Mexico City will reduce exposures to about 25 million people, who live and work in Mexico City.</p> <p>A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 40.</p>			

STRATEGIC OBJECTIVE: PROTECT, SUSTAIN, AND RESTORE THE HEALTH OF NATURAL HABITATS AND ECOSYSTEMS. FY 2004 Cost (in thousands): \$139,064 (12.2% of FY 2004 Goal 4 Total Costs)

Progress Toward Strategic Objective: EPA's ecosystem protection programs encompass a wide range of approaches that target specific at-risk regional areas, along with broader categories of threatened ecosystems such as estuaries and wetlands. Locally generated pollution, combined with pollution transported by rivers and streams and through air deposition, collects in these closed and semi-closed ecosystems, degrading them over time. EPA has exceeded its 2008 goal of protecting and restoring 250,000 acres of estuarine habitat. Since 2001, cumulatively 432,800 acres have been protected or restored, with more than 107,000 acres protected and/or restored in FY 2004.¹⁶

EPA also continues to make progress toward ecosystem protection and restoration in the Great Lakes, Chesapeake Bay, and the Gulf of Mexico. Fewer persistent toxics under the Great Lakes Binational Toxics Strategy were used and released. A key source of toxics was addressed via remediation of a record 975,000 cubic yards of contaminated sediment in 2003 and initiation of EPA's first Great Lakes Legacy Act project to clean up sediments in the Black Lagoon in Michigan. In the Gulf of Mexico, a total of 13,368 acres of coastal and marine habitats were restored or protected as of 2004, exceeding the target in FY 2004 and contributing to the 10-year goal of 20,000 acres. In the Chesapeake Bay, 64,709 acres of submerged aquatic vegetation (SAV), an indicator of the health of the bay and important habitat for aquatic species, was reported in FY 2004. Though record wet weather events in 2003 deposited nutrient-laden sediments into the Chesapeake Bay and resulted in less acres of submerged aquatic vegetation (SAV) than anticipated, the extent of SAV continues to generally show a positive trend, with an increase of 26,709 acres from 1984 levels. EPA is making progress toward the 2010 goal of 185,000 acres of SAV in the Chesapeake Bay.

APG 4.13 Protecting and Enhancing Estuaries		Planned	Actual
FY 2004	Restore and protect estuaries through the implementation of Comprehensive Conservation and Management Plans (CCMPs). Goal Met.		
	Performance Measure: Acres of habitat restored and protected nationwide as part of the National Estuary Program (annual).	25,000	107,000

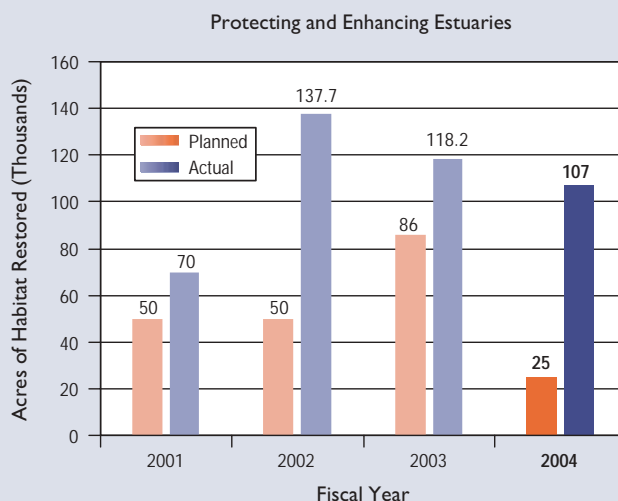
APG 4.13 Protecting and Enhancing Estuaries (continued)

Planned

Actual

FY 2004 Result: The National Estuary Program significantly exceeded this year's goal, reflecting the continuing emphasis by NEPs on key components of their CCMPs relating to coastal habitat. The target was exceeded due to several factors including increased community interest and involvement in protection and restoration as well as the enhanced capacity of EPA and its partners to collect and report on data depicting protection and restoration achievements. In addition, it is difficult to predict precisely to what extent NEPs will choose to address habitat preservation in their annual workplans.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, pages 41 -42.



APG 4.14 Great Lakes: Ecosystem Assessment

Planned

Actual

FY 2004

Great Lakes ecosystem components will improve, including progress on fish contaminants, beach closures, air toxics, and trophic status. **Goal Not Met.**

Performance Measures:

—Long-term concentration trends of toxics (PCBs) in Great Lakes top predator fish.	5%	Data avail FY 2005
—Long-term concentration trends of toxic chemicals in the air.	7%	Data avail FY 2005
—Total phosphorus concentrations (long-term, Ug/l) in the Lake Erie Central Basin.	10	21.2 Ug/l

FY 2003

Same Goal, different targets. **Goal Not Met.**

Performance Measures:

—Long-term concentration trends of toxics (PCBs) in Great Lakes top predator fish.	5%	Data avail FY 2005
—Long-term concentration trends of toxic chemicals in the air.	7%	Data avail FY 2005
—Total phosphorus concentrations (long-term, Ug/l) in the Lake Erie Central Basin.	10	18.4

FY 2002

Same goal, different targets. **Goal Not Met.**

Performance Measures:

—Long-term concentration trends of toxics (PCBs) in Great Lakes top predator fish.	declining	declining
—Long-term concentration trends of toxic chemicals in the air.	declining	declining
—Total phosphorus concentrations (long-term, Ug/l) in the Lake Erie Central Basin.	improving	mixed

APG 4.14 Great Lakes: Ecosystem Assessment (continued)		Planned	Actual
FY 2001	Great Lakes ecosystem components will improve, including progress on fish contaminants, beach closures, air toxics, and trophic status. <i>Goal Met.</i>		
	Performance Measures:		
	—Concentration trends of toxics (PCBs) in Great Lakes top predator fish.	declining	uncertain
	—Concentration trends of toxic chemicals in the air.	declining	declining
	—Trophic status and phosphorous concentrations in the Great Lakes.	improving	improving
<p>FY 2004 Result: The data for the measures regarding toxics concentrations in fish and air will not be available until the second quarter of FY 2005. The phosphorus concentration target was not met, this is discussed in detail below.</p> <p>PCB concentrations in predator fish are tracked because it is a prime indicator of whether contaminant levels in the Great Lakes are decreasing, increasing, or staying level. Data are available from 1972. Monitoring results from 2002 were planned to be reported in 2004. However, quality assurance problems continue to delay reporting on PCB concentrations in top-predator fish. EPA is providing contractor assistance and has conducted a site visit to assist with resolution of the problems. It is anticipated that quality assured data will be available in FY 2005. Historical trends suggest the concentration level will be less than 2 parts per million (the FDA Action level) for the reporting year 2004 (sample year 2002), but far above the Great Lakes Initiative target or levels at which fish advisories can be removed. Year-to-year variations are expected and will influence the long-term trend, making it difficult to see statistically significant trends on a year-to-year basis.</p> <p>Atmospheric deposition has been shown to be a significant source of pollutants to the Great Lakes. Atmospheric deposition data are available for this measure beginning in 1990 collected through the joint US/Canadian Integrated Atmospheric Deposition Program and includes PCBs, PAHs, and pesticides. Monitoring results from 2002 were planned to be reported in 2004. However, although United States atmospheric deposition data are available through 2002 to calculate annual decline in PCBs (Lake Erie 7%, Lake Michigan 10%, Lake Superior 3.6%, which averages approximately 7%), Canadian reporting for atmospheric deposition in Lakes Huron and Ontario, which is anticipated in 2005, needs to be aggregated with the U.S. data in order to determine FY 2004 performance. Targets for FY 2005 and FY 2008 are 7% and 30% annual decline, respectively, and historical trends suggest that trends will continue to decline. For instance, depending on the lake, PCB concentrations could be expected to range from 50 to 250 pg/m³ (picograms per cubic meter). Year-to-year variations are expected and will influence the long-term trend, making it difficult to see statistically significant trends on a year-to-year basis. Success will require participation in the Great Lakes Strategy, State of the Lakes Ecosystem Conferences, Lakewide Management Plans, and Remedial Action Plans.</p> <p>Phosphorus concentrations in Lake Erie have been tracked since 1983. Results from monitoring in 2003 are reported in 2004 and at 21.2 ug/Liter are at a concentration approximately twice the target of 10 ug/Liter. The Lake Erie Central Basin is the focus of this measure because Lake Erie exceeded phosphorus guideline levels in recent years and because its central basin is most representative of Lake Erie's anoxia problems. The Lake Erie phosphorus problem is linked to the increased "dead zone," or zone of limited dissolved oxygen which is the subject of an ongoing EPA-led study. EPA expects to issue the final report in FY 2005. Causes and management implications are still being determined; however, invasive species, especially zebra and quagga mussels, appear to be a factor. As a result of discussions with scientists from Environment Canada in 2003 and 2004, the Canadian government has extended the study of Lake Erie through 2004. Canadian efforts are focused on areas which complement the ongoing EPA-led study and include estimates of zebra and quagga populations and water movement in Lake Erie. For further information on Great Lakes indicators see http://www.epa.gov/glnpo/glindicators/.</p> <p>A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 42.</p> <p>FY 2003 Result Available in FY 2004: The data for the measures regarding toxics concentrations in fish will not be available until the second quarter of FY 2005. Quality assurance problems continue to delay reporting on PCB concentrations in top predator fish. EPA is providing contractor assistance and it is anticipated that quality assured data will be available in FY 2005.</p> <p>The data for the measures regarding long-term concentration trends of toxic chemicals in the air will not be available until FY 2005. Although United States data is available for 2001 and 2002 to calculate annual decline in PCBs in atmospheric deposition, Canadian reporting for atmospheric deposition in Lakes Huron and Ontario, which is anticipated in 2005, needs to be aggregated with the U.S. data in order to determine FY 2003 results. The U.S. data for 2001, which EPA had planned to report in 2003, shows the following declines: Lake Erie 7.1%, Lake Michigan 10.5%, Lake Superior 4%, which averages approximately 7% overall. EPA continues to discuss the Canadian lag time for this data with Canada.</p>			

APG 4.15 Chesapeake Bay Habitat

Planned

Actual

FY 2004 Improve habitat in the Chesapeake Bay. **Goal Not Met.***Performance Measure:*

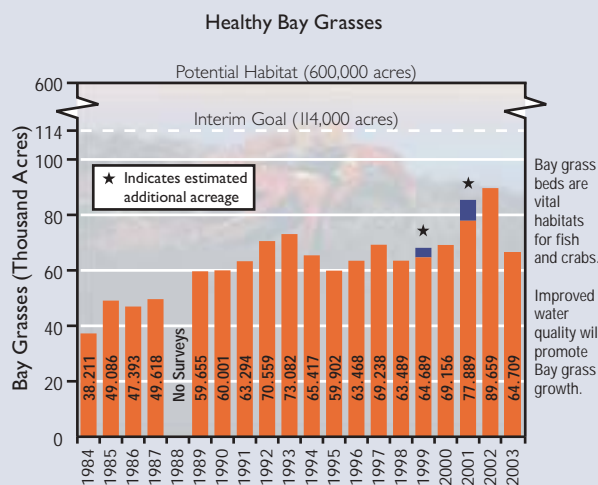
Acres of submerged aquatic vegetation present in the Chesapeake Bay (cumulative).

90,000

64,709

FY 2004 Result: While acreage estimates fluctuate year to year, data generally show a slow, steady increase from 38,000 acres in 1984 to nearly 90,000 acres in 2002 as reported in FY 2003. (SAV data is collected from April through October of a given year; then data go through QA/QC from October through April, i.e. the FY 2004 Result derives from an April through October 2003 sampling period). However, record wet weather in 2003 washed massive amounts of nutrients and sediment into the Bay, which resulted in a 30% decline in SAV in a single year. Chesapeake Bay Program partners will increase efforts to reduce nutrient and sediment pollution to achieve the 185,000 acre goal by 2010.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 42.



APG 4.16 Gulf of Mexico

Planned

Actual

FY 2004 Assist the Gulf States in implementing watershed restoration actions in 71 (5-year rolling average) priority impaired coastal river and estuary segments. **Goal Met.**

71

71.2

FY 2003 Same Goal, different target. **Goal Met.**

14

95

FY 2004 Result: In FY 2000, the Agency established, through consensus with the Gulf States, a strategic performance target to focus the program's collaborative capacity towards helping the states address and correct water quality issues impacting 20% of the impaired waters contained in coastal watersheds bordering the Gulf of Mexico. The 20% target represents 71 of the 354 segments listed by the states 1998 303(d) report. The strategy allowed the states to incrementally ramp up to the 20% target over the 5-year period from 2000-2004. To accomplish this, the Agency, in cooperation with the states, set target increments of 14 segments per year (FYs 2000-2003) and, 15 in FY 2004.

Through the implementation of this strategy, the Agency achieved its "71 segment rolling average" as originally targeted in FY 2004 and as outlined below:

Fiscal Year	Annual Target Increments (Segments)	Cumulative Target (Segments)	Actual Annual Program Performance (Segments)	Rolling Average Target (i.e., "71 by 2004") (Segments)
2000	14	14	32	32
2001	14	28	31	32
2002	14	42	35	33
2003	14	56	95	48
2004	15	71	163	71

Leading this process, the Gulf States have identified the priority impaired waterbody segments sub-population that will serve to further focus the program's restoration assistance efforts through 2008. Beginning in FY 2005, and carrying through FY 2008, the program's goal will be to sustain assistance in 71 segments in order to achieve the overall 2008 performance goal of 20% priority impaired waters restoration.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, pages 42-43.

STRATEGIC OBJECTIVE: THROUGH 2008, PROVIDE A SOUND SCIENTIFIC FOUNDATION FOR EPA'S GOAL OF PROTECTING, SUSTAINING, AND RESTORING THE HEALTH OF PEOPLE, COMMUNITIES, AND ECOSYSTEMS BY CONDUCTING LEADING-EDGE RESEARCH AND DEVELOPING BETTER UNDERSTANDING AND CHARACTERIZATION OF ENVIRONMENTAL OUTCOMES UNDER GOAL 4. FY 2004 Cost (in thousands): \$398,586 (34.9% of FY 2004 Goal 4 Total Costs)

Progress Toward Strategic Objective: EPA is on track to meet this objective. EPA's cutting-edge research provides the scientific basis for determining the status of and protecting the health of the Nation's people, communities, and ecosystems. In addition to providing an innovative method for determining the biological integrity of fish communities, EPA also assessed the accuracy of important data used throughout the Agency to measure environmental improvements and found that it meets accuracy standards. National Land Cover Data (NLCD) is the most widely-used land-cover data across EPA, with approximately 30% of the indicators used in EPA's Report on the Environment based on NLCD. A thematic accuracy assessment of these data, never undertaken prior to this effort that was completed in 2004, shows that these data meet accuracy standards⁷. EPA also provided important information on best management practices for controlling amounts of nitrogen and phosphorous, nutrients that can result in eutrophication (an overabundance of algae that blocks light and uses up oxygen). This information will assist states in meeting Total Maximum Daily Load (TMDL) requirements for nutrients. EPA has also made significant strides in the area of protecting children's health. Research completed in 2004 includes an emission model for estimating inhalation exposure of children to cleaning products used in schools, and a report on the long-term developmental effects of dioxin exposure during pregnancy.⁸

APG 4.17 Regional Scale Ecosystem Assessment Methods

Planned

Actual

FY 2004

Provide federal, state, and local resource managers with a means to more effectively determine long-term trends in the condition and vitality of Eastern U.S. stream ecosystems through measurements of changes in the genetic diversity of stream fish populations. **Goal Met.**

Performance Measure:

A study of fish genetic diversity that demonstrates the power of this modern approach for evaluating condition and vitality of biotic communities to federal, state and local resource managers.

1 report

1 report

FY 2004 Result: The development and application of new and more powerful methods to evaluate ecological integrity is central to many state and Federal assessment programs. Technological progress in the fields of molecular biology and genetics has allowed, for the first time, the cost-effective analysis of patterns in the genetic diversity of aquatic populations over large regional scales. This genetic information brings new and powerful information to our understanding of aquatic ecosystems, including the identification of appropriate ecological assessment units, the linkages between environmental condition and population responses, and estimates of the future susceptibility of populations due to loss of genetic diversity. In FY 2004, EPA summarized the results of research on the genetic diversity of indicator fish species inhabiting Wadeable streams in the Mid-Atlantic, as well as in parts of Ohio. The report found that genetic diversity of stream fish was reduced in areas of poor environmental quality. This loss of genetic diversity is likely to impact the ability of fish in these areas to respond to future environmental challenges. In addition, genetic identification provides a more precise and less subjective method for identifying species than methods based on physical characteristics. This report will provide resource managers and the public with a more complete understanding of the present condition of these biological resources and their vulnerability to predicted environmental changes.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 43.

APG 4.18 Homeland Security Research

Planned

Actual

FY 2004

Provide a database of EPA experts on topics of importance to assessing the health and ecological impacts of actions taken against homeland security that is available to key EPA staff and managers who might be called upon to rapidly assess the impacts of a significant terrorist event. **Goal Met.**

APG 4.18 Homeland Security Research (continued)		Planned	Actual
FY 2004 (continued)	<p>Performance Measure:</p> <p>A restricted access database of EPA experts with knowledge, expertise, and experience for use by EPA to rapidly assess health and ecological impacts focused on safe buildings and water security.</p>	1 database	1 database
<p>FY 2004 Result: This restricted access database has been distributed to key EPA staff and managers, and is updated quarterly. It will facilitate rapid deployment in response to an incident.</p> <p>A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 43.</p>			

APG 4.19 Homeland Security Research		Planned	Actual
FY 2004	<p>Provide to building owners, facility managers, and others, methods, guidance documents, and technologies to enhance safety in large buildings and to mitigate adverse effects of the purposeful introduction of hazardous chemical or biological materials into indoor air.</p> <p>Goal Met.</p> <p>Performance Measures:</p> <ul style="list-style-type: none"> —Prepare Environmental Technology Verification (ETV) evaluations on at least 5 new technologies for detection, containment, or decontamination of chemical/biological contaminants in buildings to help workers select safe alternatives. —Through Small Business Innovative Research awards, support at least 3 new technologies/methods to decontaminate heating, ventilation, and air conditioning systems in smaller commercial buildings or decontaminate valuable or irreplaceable materials. —Prepare technical guidance for building owners and facility managers on methods/strategies to minimize damage to buildings from intentional introduction of biological/chemical contaminants. 	5 3 9/30/04	10 4 9/30/04
<p>FY 2004 Result: Anthrax contamination and the extensive clean-up efforts in postal facilities and several other government and commercial buildings emphasized the need for improved methods to enhance security against terrorist activities in buildings and to provide additional options for cleaning up buildings. EPA is focusing on research, development, testing, and communication of enhanced methods for detection and containment of biological and chemical warfare agents and toxic industrial chemicals intentionally introduced into large buildings. Research is also addressing decontamination of building surfaces, furnishings, and equipment with safe disposal of residual materials. In FY 2004, EPA provided emergency responders, building owners and managers, and decontamination crews with information, including guidance documents and technology evaluations, needed to enhance safety in buildings and to mitigate adverse effects of the purposeful introduction of hazardous chemicals or biological materials into indoor air.¹⁹</p> <p>A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 43.</p>			

APG 4.20 Homeland Security Research		Planned	Actual
FY 2004	<p>Verify two point-of-use drinking water technologies that treat intentionally introduced contaminants in drinking water supplies for application by commercial and residential users, water supply utilities, and public officials. Goal Met.</p>	2	2

APG 4.20 Homeland Security Research *(continued)* Planned Actual

FY 2004 Result: Evaluations of point-of-use drinking water treatment technologies have been ongoing for years and technologies are commercially available to remove disagreeable tastes and odors, and capture or neutralize contaminants. These point-of-use treatment technologies are now being considered as an additional means of treating water that may have been exposed to biological or chemical contaminants through terrorist attacks. In FY 2004, EPA's Environmental Technology Verification (ETV) program formally verified such technologies using a standard protocol developed by a group of critical stakeholders. This additional line of defense can help reassure home and building owners and users, water supply utilities, and public officials that the drinking water supply in a residential or commercial building can be treated again once it enters the water distribution system of a building.²⁰

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 43.

APG 4.21 Risk Assessment Research Planned Actual

FY 2004 Through FY 2005 initiate or submit to external review 28 human health assessments and complete 12 human health assessments through the Integrated Risk Information System (IRIS). This information will improve EPA's and other decision-makers' ability to protect the public from harmful chemical exposure. **Goal Met.**

Performance Measures:

—Complete 4 human health assessments and publish their results on the IRIS website ²¹ .	4	4
—Initiate or submit to external peer review human health assessments of at least 20 high priority chemicals.	20	20

FY 2004 Result: The Integrated Risk Information System (IRIS) is an EPA data base containing Agency consensus scientific positions on potential adverse human health effects that may result from exposure to chemical substances found in the environment. IRIS currently provides information on health effects associated with chronic exposure to more than 500 specific chemical substances. IRIS contains chemical-specific summaries of qualitative and quantitative health information in support of the first two steps of the risk assessment process, i.e., hazard identification and dose-response evaluation. Combined with specific situational exposure assessment information, the information in IRIS may be used as a source in evaluating potential public health risks from environmental contaminants. IRIS is widely used in risk assessments for EPA regulatory programs and site-specific decision making. Updating IRIS with new scientific information is critical to maintaining information quality and providing decision makers with a credible source of health effects information. The health assessments completed and initiated in FY 2004 will provide EPA and other decision makers with needed updates to IRIS so they can make informed decisions on how to best protect the public from harmful chemical exposure. In 2004, EPA completed human health assessments on four chemicals (2-methylnaphthalene, lead, boron, and ethylene dibromide) and has posted these on the IRIS web site. In FY 2005, EPA will complete an additional 8 assessments and initiate 8 more for a two year total of 28 initiated assessments and 12 completed health assessments.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 43.

APG 4.22 Computational Toxicology Planned Actual

FY 2004 Develop a computation toxicology research strategy (strategic framework) that provides the framework for research that will help fill major data gaps for a large number of chemical testing programs and reduce the cost and use of animal testing. **Goal Met.**

Performance Measure:

Produce a computational toxicology research strategic framework.	1 strategy	1 strategy
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FY 2004 Result: In FY 2004, EPA completed "A Framework for a Computational Toxicology Research Program in ORD."²² This document identifies the major research gaps and approaches for the development of an EPA program on computational toxicology. The objective of the Computational Toxicology research program is to integrate modern computing and information technology with

APG 4.22 Computational Toxicology *(continued)***Planned****Actual**

molecular biology to improve the Agency's prioritization of data requirements and risk assessment of chemicals. The ultimate goal of the program is to demonstrate the feasibility of setting mechanistically-based priorities for chemical risk assessment and to optimize testing requirements through the use of computational methods and molecular profiling afforded by the advances in emerging technologies such as proteomics and genomics.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 43.

APG 4.23 Human Health Risk Assessment Research**Planned****Actual****FY 2004**

Contribute to protecting children from harmful environmental agents in their daily lives by providing risk assessors and managers with better data on children's aggregate exposures in their home and daycare settings. **Goal Met.**

Performance Measure:

Analysis of the "Children Total Exposure to Pesticides and Persistent Organic Pollutants (including EDCs) Study" to estimate aggregate exposures and identify critical exposure factors that can be used by the Agency to improve exposure and risk assessments.

|

|

FY 2004 Result: In FY 2004, EPA completed a report for Congress on the aggregate exposures of preschool children to pollutants commonly found in their everyday environments. Current risk assessments for children are severely hampered by a lack of exposure data and by exposure factors that are insufficient to describe how exposures change as children grow up and change their activities. The report found that the relative contribution of the various exposure pathways (the air kids breathe, the food and drink kids consume, or the things that they touch) varies from chemical to chemical. For the more than 50 chemicals studied, the dietary pathway was often the most significant pathway for exposure. The updated exposure factors are more reliable since they incorporate more complete and better data and approaches to describe children's exposures to environmental pollutants. These data and factors should significantly improve the reliability of the estimates of children's exposure and risk used by regulatory decision-makers throughout EPA.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 43.

ASSESSMENT OF IMPACTS OF FY 2004 PERFORMANCE ON FY 2005 ANNUAL PLAN

Based on the results of FY 2004 performance, adjustments will be made to three FY 2005 performance measure targets. The first is reducing wildlife incidents and mortalities which will be reduced from a cumulative total of 27% to 12% for FY 2005. These targets have been missed for the prior 2 years so the FY 2005 change is necessary to account for that reality.

The second measure which will be changed for FY 2005 is the occurrence of residues on a core set of 19 foods eaten by children relative to occurrence levels for those foods reported in 1994-1996. After 2 years of experience in analyzing the data, the measure has been determined to be too general with too many variables from year to year in order to provide a consistent, reliable trend. Information is being reviewed to determine a more appropriate measure.

The final measure which will be changed for FY 2005 is the safe disposal of capacitors. CY 2002 results released in January of 2004 show a total of 2,204 large capacitors safely disposed, compared to 9,494 in CY 2001. CY 2004 results will not be released until 2006. The FY 2004 annual performance target is 6,000 large capacitors safely disposed and the FY 2005 annual performance target increases that number to 9000. Due to the downward industrial disposal trend in CY 2002, data quality issues are being investigated and depending on findings, the FY 2005 performance target may need to be adjusted.

Prior Year Annual Performance Goals Without Corresponding FY 2004 Goals

(Actual performance data available in FY 2004 and beyond)

FY 2000	Administer federal programs and oversee state implementation of programs for lead-based paint abatement certification and training in 50 states, to reduce exposure to lead-based paint and ensure significant decreases in children's blood levels by 2005.	target year is FY 2005
FY 1999	Complete the building of a lead-based paint abatement certification and training in 50 states, to ensure significant decreases in children's blood levels by 2005 through reduced exposure to lead-based paint.	target year is FY 2005
FY 1999	Develop and verify innovative methods and models for assessing the susceptibilities of population to environmental agents, aimed at enhancing risk assessment and management strategies and guidelines.	target year is FY 2008

FY 2003 Annual Performance Goals

(No Longer Reported for FY 2004)

- Reduce public and ecosystem risk from pesticides.
- Provide the public with a reliable and statistically valid baseline for the condition of nation's estuaries against which to measure the success of ecosystem protection and risk management practices.

NOTES

- 1 U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics. “TSCA New Chemicals Program.” Internal monthly report by Chemical Abstract Services.
- 2 For more information, please visit: http://www.epa.gov/Region9/cross_pr/childhealth/pbde.html.
- 3 U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics. “High Production Volume Challenge Program, HPV Commitment Tracking System.” Available at <http://www.epa.gov/chemrtk/viewsrch.htm>.
- 4 Florida Department of Environmental Protection. 2003. *Integrating Atmospheric Mercury Deposition and Aquatic Cycling in the Florida Everglades: An approach for Conducting a Total Maximum Daily Load Analysis for an Atmospherically Derived Pollutant. Final Report*. Tallahassee, Florida. Available at <ftp://ftp.dep.state.fl.us/pub/labs/assessment/mercury/tmdlreport03.pdf>
- 5 Centers for Disease Control, National Center for Health Statistics. *National Health and Nutrition Examination Survey: 1999-2002*. More information is available at <http://www.cdc.gov/nchs/nhanes.htm>.
- 6 More information on the Executive Order is available at <http://www.epa.gov/glnpo/taskforce>.
- 7 More information is available at <http://www.epa.gov/owow/estuaries/pivot/overview/intro.htm>.
- 8 More information is available at <http://www.whitehouse.gov/news/releases/2004/04/20040422-4.html>.
- 9 More information is available at <http://www.bmwusfactory.com/community/environment/gastoenergy.asp>.
- 10 More information is available at <http://www.unep.org/PCFV/Data/data.htm#leaded>.
- 11 For more information, please visit: <http://www.unipune.ernet.in/dept/env/pei/index.html>.
- 12 For more information, please visit: <http://www.epa.gov/indicators/roe/html/tsd/tsdHealth.htm#43>.
- 13 For more information on EMAP, please visit: <http://www.epa.gov/emap/>.
- 14 *Arctic Pollution Issues: A State of the Arctic Environment Report*. Arctic Monitoring and Assessment Programme, 1997. ISBN 82-7655-060-6
- 15 U.S. Environmental Protection Agency, Office of Research and Development. 2004. *Water Security and Technical Support Action Plan*. EPA/600/R-04/063. Washington, DC: U.S. Government Printing Office.
- 16 The specific language for this strategic target reads as follows: “By 2008, working with National Estuary Program (NEP) partners, protect or restore an additional 250,000 acres of habitat within the study areas for the 28 estuaries that are part of the NEP.”
- 17 U.S. Environmental Protection Agency, Office of Research and Development. Not yet published. *Thematic Accuracy of Multi-Resolution Land Characterization–National Land Cover Database Land Cover for the Western United States*.
- 18 Vorderstrasse, B, S.E Fenton., A.A Bohn., J.A.Cundiff, and B.P. Lawrence. 2004. “A novel effect of dioxin: exposure during pregnancy severely impairs mammary gland differentiation.” *Toxicol. Sci.* (In Press).
Lawrence, B.P., B.A. Vorderstrasse, S.E. Fenton, and A.A. Bohn. 2003. “Exposure to 2,3,7,8-tetrachlorodibenzo-p-dioxin (TCDD) impairs Mammary Gland Differentiation in Pregnant c57Bl/6 Mice and Prevents Pup Survival.” *Toxicologist* 72:230.
- 19 Information is available at <http://www.epa.gov/etv/verifications/vcenter10-1.html> and at http://cfpub.epa.gov/ncer_abstracts/index.cfm/fuseaction/outlinks.sbir/rc_id/916/showYear/all
- 20 Information is available at <http://www.epa.gov/etv/verifications/verification-index.html>.
- 21 Information is available at <http://www.epa.gov/iris>.
- 22 U.S. Environmental Protection Agency. *Framework for a Computational Toxicology Research Program at ORD*. EPA-600/R-03/065. Information is available at <http://www.epa.gov/comptox>.

GOAL 5: Compliance and Environmental Stewardship



Improve environmental performance through compliance with environmental requirements, preventing pollution, and promoting environmental stewardship. Protect human health and the environment by encouraging innovation and providing incentives for governments, businesses, and the public that promote environmental stewardship.

Under Goal 5, EPA continues to improve national environmental performance by ensuring compliance with environmental law and promoting environmental stewardship to conserve resources, prevent pollution, and reduce waste. The Agency uses a wide spectrum of regulatory and nonregulatory strategies, including compliance assistance and incentives, monitoring and data analysis, pollution prevention, and civil and criminal enforcement. EPA also conducts research to identify innovative approaches to environmental protection and encourages states, tribes, and regulated entities to develop new approaches, ideas, and techniques.

EPA's compliance programs work to ensure that regulated entities understand and comply with environmental law requirements. The Agency helps business—small businesses in particular—achieve and maintain compliance¹ and provides incentives² for facilities to conduct voluntary audits, correct problems, and return to compliance. EPA also uses enforcement actions³ to correct and deter violations. In settling these civil cases, the Agency often negotiates supplemental environmental projects⁴ that improve health and the environment in affected communities.



Civil enforcement actions completed in FY 2004 will reduce, properly treat, or eliminate an estimated 1 billion pounds of pollutants from release into the environment. In addition, 25.3 million pounds of pollutants will be reduced as a result of FY 2004 criminal enforcement actions.⁵ Enforcement actions will also require companies to invest \$4.8 billion in pollution control and improve environmental management practices at facilities. In FY 2004, 969 facilities voluntarily disclosed violations and corrected problems to achieve compliance.⁶ Ninety percent of the regulated community responding to compliance assistance center surveys indicated an improved understanding of environmental regulation, and 72 percent improved environmental management practices as a

Enforcement actions reduce an estimated 1 billion pounds of pollution

result of the assistance. Forty-eight percent of survey respondents reported that they reduced, treated, or eliminated pollution as a result of the assistance.⁷

Strong environmental stewardship protects the environment and conserves natural resources

EPA works directly with the regulated community to recognize and encourage outstanding environmental leadership and performance through innovative programs. The National Environmental Performance Track Program is building a culture of corporate environmental responsibility and superior performance by recognizing and rewarding high-performing environmental leaders who go well beyond complying with environmental law. During FY 2004, high-achieving companies used Performance Track's performance goals and measures to demonstrate significant, tangible benefits for the environment. Led by EPA and 23 states, the 344 member facilities have cumulatively conserved 3.1 trillion British Thermal Units of energy and 775 million gallons of water. Since FY 2000, Performance Track members have reduced their use of hazardous materials by nearly 18,000 tons and cut generation of solid waste by more than 176,000 tons. Members also have preserved or restored 4,485 acres of habitat. During 2004, Performance Track demonstrated its capability as an engine for

SUPPLEMENTAL ENVIRONMENTAL PROJECTS— BENEFITING BOSTON COMMUNITIES:

Integrating pollution prevention into enforcement actions can help to promote environmental stewardship. For example, recognizing that many scientific studies have linked breathing particulate matter with a series of significant health problems, including aggravated asthma,¹⁰ EPA's Region 1 negotiated settlements against the Mystic Station power plant and the Massachusetts Bay Transit Authority that included supplemental environmental projects to address this air issue in the local community. As a result of the supplemental projects, the City of Boston's school bus fleet and the commuter trains that pass through Boston were modified to burn low-sulfur rather than high-sulfur diesel fuel, reducing emissions of particulate matter.¹¹ These projects benefit environmentally disadvantaged Boston communities which have some of the nation's highest rates of children's asthma.



driving environmental change in business systems, resulting in dramatic performance improvements that would not have been realized through regulatory approaches.⁸

PERFORMANCE TRACK

Through Performance Track, the Baxter Caribe facility in Puerto Rico has shown that environmental stewardship is a win for the environment and a win for the company. Baxter Caribe aggressively reduced its use of energy and its solid and hazardous wastes. Largely by reducing the use of acetone, Baxter cut its hazardous waste generation by 195,000 pounds. All this was accomplished while plant production increased 70 percent.¹⁴

EPA's Sector Strategies Program also collaborates with the Agency's business partners to improve their environmental performance. Under this program, EPA works with 12 business sectors that have a significant impact on the nation's economy and the environment to identify cost-effective methods for reducing energy use and protecting the environment. In FY 2004, the Agency published the *Sector Strategies Performance Report*,⁹ which establishes baseline trends data from which to measure future program progress.

EPA and its partners used a variety of collaborative, nonregulatory approaches to reduce pollution, conserve water and energy, and minimize business costs. The Agency's Pollution Prevention (P2) program employs a threefold approach: (1) "greening" the nation's supply and demand chains to make them more environmentally sound; (2) integrating P2 into such regulatory processes as permitting; and (3) delivering P2 services, such as technical assistance and information, to businesses, communities, and the public. EPA's P2 programs made significant progress in FY 2004:

- The Agency's *Green Chemistry Challenge Program*¹² award winners eliminated the use of 134 million pounds of hazardous chemicals.
- One aerospace company realized an annual savings of \$425,000 as a result of a *Green Supplier Network*¹³ review.
- The *Design for the Environment* partnership with the industrial laundry industry eliminated the use of 63 million pounds of hazardous chemicals, conserved 23 million gallons of water, and realized \$488,000 in business cost savings.¹⁵

As EPA more frequently turns to pollution prevention to address high-risk human health and environmental problems, the need for innovative design

and production techniques has increased. Research that EPA conducts to support Goal 5 informs federal, state, and local government officials; industry; academia; citizen groups; and other stakeholders about pollution prevention and new technology opportunities and alternatives. On December 31, 2003, EPA launched the Environmental Technology Opportunities Portal Internet site to assist customers seeking funding opportunities, information, and links to programs that support environmental technology development and commercialization.¹⁶ EPA is currently reorienting its pollution prevention program research agenda to introduce sustainability concepts and approaches. This research will enable Agency, state, community and other decision makers to include risk reduction and pollution prevention as quantifiable, measurable, and scientifically defensible components of a holistic approach to risk management.

EPA works with federally recognized American Indian and Alaska Native tribes to assess environmental conditions, build tribal capacity, and implement programs to protect health and the environment in Indian Country. In FY 2004, the number of tribes developing their own environmental programs increased, and EPA increased its presence in Indian Country by directly implementing environmental programs and developing EPA/tribal environmental agreements.



In the months ahead, EPA will continue to pursue reductions in priority chemical waste, evaluate trends, and rely on collaborative programs to promote environmental stewardship and improve environmental performance. EPA will work with regulated entities to better define their needs for compliance assistance, environmental management, and innovative technologies. The Agency will build upon progress in greening all levels of government and the marketplace, leverage the power of government purchasing to promote environmental stewardship and sustainable practices, and expand and improve the delivery of P2 services to small and mid-sized companies. EPA's compliance program will use performance-based national strategies and priorities and improved performance data to better direct its assistance, incentive, and enforcement efforts to improve environmental performance and increase environmental stewardship by the regulated community.

THE NATIONAL PARTNERSHIP FOR ENVIRONMENTAL PRIORITIES

Through the *National Partnership for Environmental Priorities* (NPEP), General Electric facilities in Ohio, Pennsylvania, Virginia, and Puerto Rico have committed to reducing their use of lead by 165,000 pounds over the next 3 years. Overall, 36 industrial and federal partners committed to using source reduction and recycling to eliminate 1.9 million pounds of hazardous waste. More information on NPEP is available at <http://www.epa.gov/epaoswer/hazwaste/minimize/partnership.htm>.



GOAL 5: COMPLIANCE AND ENVIRONMENTAL STEWARDSHIP

Annual Performance Goals Met: **9**
 Annual Performance Goals Not Met: **0**
 Data Available After 11/5/04: **1**

FY2004 Obligations (in thousands):

EPA Total: \$10,155,381
 Goal 5: \$733,060
 Goal 5 Share of Total: 7.2%

FY2004 Costs (in thousands):

EPA Total: \$8,837,375
 Goal 5: \$717,059
 Goal 5 Share of Total: 8.1%

STRATEGIC OBJECTIVE: BY 2008, MAXIMIZE COMPLIANCE TO PROTECT HUMAN HEALTH AND THE ENVIRONMENT THROUGH COMPLIANCE ASSISTANCE, COMPLIANCE INCENTIVES, AND ENFORCEMENT BY ACHIEVING A 5% INCREASE IN THE POUNDS OF POLLUTION REDUCED, TREATED, OR ELIMINATED,¹⁷ AND ACHIEVING A 5% INCREASE IN THE NUMBER OF REGULATED ENTITIES MAKING IMPROVEMENTS IN ENVIRONMENTAL MANAGEMENT PRACTICES.¹⁸ (BASELINE TO BE DETERMINED FOR 2005.) FY 2004 Cost (in thousands): \$434,585 (60.6% of FY 2004 Goal 5 Total Costs)

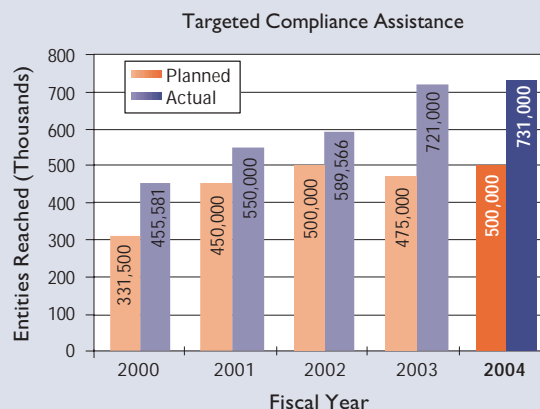
Progress Toward Strategic Objective: EPA continues to protect human health and the environment through compliance assistance, compliance incentives, monitoring, and civil and criminal enforcement. In FY 2004, 1 billion pounds of pollution are estimated to be reduced, treated, or eliminated as a result of facilities returning to compliance through enforcement settlements reached during the year. Through FYs 2001–2004, EPA reduced, treated, or eliminated 2.5 billion pounds of pollution. In addition, 83% of enforcement actions in FY 2004 resulted in environmental improvements or changes in facility environmental management or information practices resulting in a 75.5% average from FYs 2001–2004. During FY 2004 there was no direct measure for increased improvements in environmental practices. Measurement for this new Strategic Objective will begin with new Annual Performance Measures in FY 2005. However since FY 2001, EPA has measured the percent of concluded enforcement actions that require an action that results in environmental benefits and/or changes in facility management or information practices. These changes address environmental management practices from enforcement actions. Improvements in environmental practices also occur through compliance assistance and compliance incentives and these improvements will be addressed by additional measures beginning in FY 2005.

APG 5.1 Compliance Assistance		Planned	Actual
FY 2004	<p>Increase the regulated community's compliance with environmental requirements through their expanded use of compliance assistance. The Agency will continue to support small business compliance assistance centers and develop compliance assistance tools such as sector notebooks and compliance guides. Goal Met.</p> <p><i>Performance Measure:</i></p> <p>Facilities, states, technical assistance providers or other entities reached through targeted compliance assistance.</p>	500,000	731,000
FY 2003	Same goal, different target. Goal Met.	475,000	721,000

APG 5.1 Compliance Assistance (continued)

FY 2004 Result: EPA continues to increase the regulated community's understanding of environmental requirements and improve facility environmental management practices by providing direct and practical assistance through the Compliance Clearinghouse,¹⁹ Compliance Assistance Centers²⁰ for 13 industry sectors, and direct assistance at the facility level or through state and local workshops. EPA collaborates with states and tribes to provide assistance, and to get their comments on proposed new requirements and development of new pollution prevention techniques. By helping businesses, local governments, and federal facilities understand federal environmental requirements, EPA promotes best management practices that reduce pollution while saving money.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 43-44.



APG 5.2 Compliance Incentives

Planned

Actual

FY 2004

Increase opportunities through new targeted sector initiatives for industries to voluntarily self-disclose and correct violations on a corporate-wide basis. **Goal Met.**

Performance Measure:

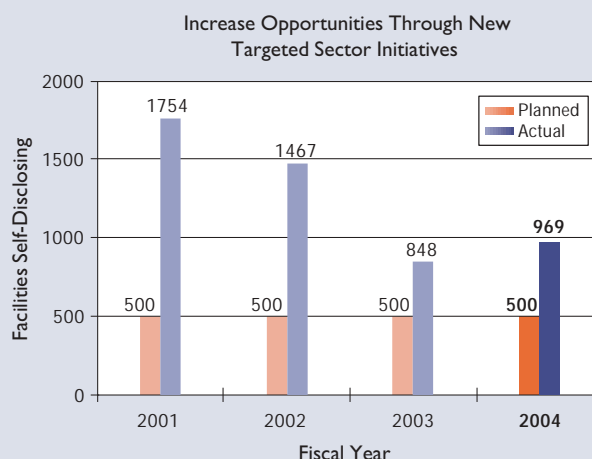
Facilities voluntarily self-disclose and correct violations with reduced or no penalty as a result of EPA self-disclosure policies.

500

969

FY 2004 Result: EPA offers an incentive program²¹ of reduced or eliminated penalties for facilities that conduct voluntary self-audits, and report and correct violations. These incentives are often used in targeted initiatives directed at specific industrial sectors and are occasionally developed in collaboration with the industry or industrial associations. Since 2001, the incentives programs have helped return thousands of facilities to compliance, furthering environmental stewardship through the provision of information, incentives and innovative approaches to reduce or eliminate pollution.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 44.



APG 5.3 Inspections/Investigations

Planned

Actual

FY 2004

EPA will conduct inspections, criminal investigations, and civil investigation targeted to areas that pose risks to human health or the environment, display patterns of non-compliance, or include disproportionately exposed populations. **Goal Met.**

APG 5.3 Inspections/Investigations (continued)

Planned

Actual

FY 2004

Performance Measures:

—Number of EPA inspections conducted.

15,500

21,000

—Number of criminal investigations.

400

425

—Number of civil investigations.

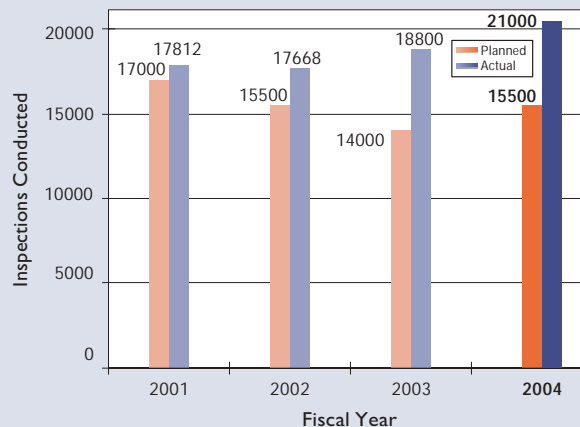
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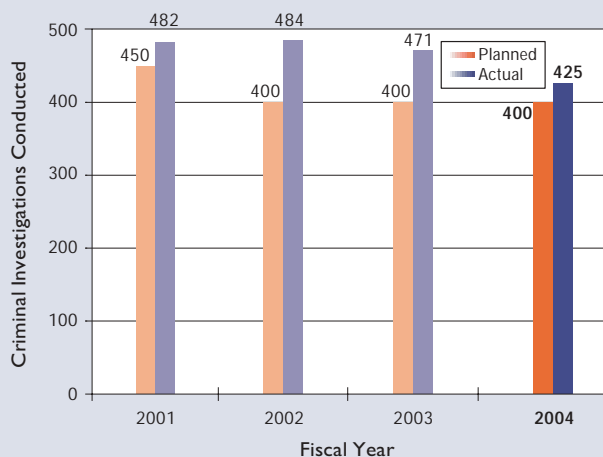
FY 2004 Result: EPA exceeded its FY 2004 targets for inspections, evaluations and investigations, maintaining an effective deterrent to violations of federal environmental laws. Investigatory activities, both civil²² and criminal,²³ help ensure a level playing field by removing any economic or competitive advantage which may be gained through noncompliance. EPA identifies, apprehends, and assists prosecutors in successfully convicting those responsible for the most significant and egregious criminal violations of environmental law. EPA eliminates or mitigates substantial risks to human health and the environment.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, pages 44-45.

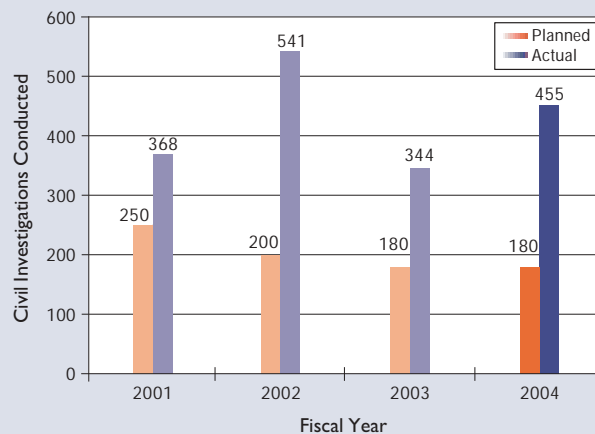
EPA Inspections Help Deter Violations of Federal Environmental Laws



EPA Exceeds FY 2004 Target for Criminal Investigations



Civil Investigations Help Ensure a Level Playing Field by Deterring Non-Compliance



APG 5.4 Increased Compliance

Planned

Actual

FY 2004

EPA will direct enforcement actions to maximize compliance and address environmental and human health problems. **Goal Met.**

Performance Measures:

—Percent of concluded enforcement actions that require an action that results in environmental benefits and/or changes in facility management or information practices.

75%

83%

—Millions of pounds of pollutants required to be reduced through enforcement actions settled this fiscal year.

350 M

1B

—Develop and use valid compliance rates or other indicators of compliance for selected populations.

5

5

APG 5.4 Increased Compliance (continued)		Planned	Actual
FY 2003	Same Goal, different measures. Goal Not Met. Performance Measures: —Percent of concluded enforcement actions require physical action that result in pollutant reductions and/or changes in facility management or information practices. —Millions of pounds of pollutants required to be reduced through enforcement actions settled this fiscal year. —Develop and use valid compliance rates or other indicators of compliance for selected populations.	75% 300 M 5 populations	63% 600 M 5 populations
FY 2002	Same Goal, different measures. Goal Not Met. Performance Measures: —Percent of concluded enforcement actions require physical action that result in pollutant reductions and/or changes in facility management or information practices. —Millions of pounds of pollutants required to be reduced through enforcement actions settled this fiscal year. —Develop and use valid compliance rates or other indicators of compliance for selected populations. —Reduce by 2 percentage points overall the level of significant non-compliance recidivism among CAA, CWA, and RCRA programs from FY 2001 levels. —Increase by 2% over FY 2001 levels the proportion of significant noncomplier facilities under CAA, CWA, and RCRA which returned to compliance in less than 2 years. —Produce report on the number of civil and criminal enforcement actions initiated and concluded.	75% 300 M 5 populations 2% 2% 1	77% 261 M 5 populations 1.6% -3.8% 1
FY 2001	Same goal, different targets. Goal Met. Performance Measures: —Percent of concluded enforcement actions require pollutant reductions and/or changes in facility management or information practices. —Estimated pounds of pollutants reduced. —Increase or maintain existing compliance rates or other indicators of compliance for populations with established baselines, or develop additional rates for newly selected populations. —Reduce by 2 percentage points overall the level of significant non-compliance recidivism among the CAA, CWA, and RCRA programs from FY 2000 levels. —Increase by 2% over FY 2000 levels the proportion of significant non-complier facilities under CAA, CWA, and RCRA which returned to compliance in less than 2 years. —Produce a report on the number of civil and criminal enforcement actions initiated and concluded.	75% 350 M 5 populations 2% 2% 1	79% 660 M 6 populations 2.4% 1.33% 1

APG 5.4 Increased Compliance *(continued)***Planned****Actual**

FY 2004 Result: EPA focused its enforcement actions in areas with the greatest potential to protect human health and the environment by identifying significant environmental, public health, and compliance problems; using data to make strategic decisions on resource use; using the most appropriate tool to achieve the outcome, and assessing and communicating effectiveness of program actions.²⁴ The enforcement actions taken required defendants to reduce, treat, or eliminate illegal emissions and discharges, establish improved environmental management practices²⁵ that will help to detect and prevent potential future non-compliance, and change their information/data practices to ensure the facilities can correctly identify and track wastes, waste processes, and their own compliance with environmental requirements. Eighty-three percent of enforcement actions concluded in FY 2004 will result in increased environmental protection or improved long-term facility environmental management practices; 38% will result in increased environmental benefits; and 71% will result in changes to facility management or information practices.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, pages 45-46.

APG 5.5 Quality Assurance**Planned****Actual**

FY 2004	<p>Identify noncompliance and focus enforcement and compliance assurance on human health and environmental problems, by maintaining and improving quality and accuracy of data. Goal Met.</p> <p><i>Performance Measure:</i></p> <p>Complete the data migration plan and begin software development as part of the system implementation life cycle stage (i.e., data migration and testing) of Phase II of Integrated Compliance Information System (ICIS) (modernization of the Permit Compliance System) by September 2004.</p>	I plan	I plan
FY 2003	<p>Same Goal, different measures. Goal Met.</p> <p><i>Performance Measures:</i></p> <ul style="list-style-type: none"> —Operate 14 information systems housing national enforcement and compliance assurance data with a minimum of 95% operational efficiency. —Complete the detailed design and software development system lifecycle stage of Phase II of ICIS (modernization of the Permit Compliance System) by September 2003. 	95%	95%
FY 2002	<p>Maintain and improve quality and accuracy of EPA's enforcement and compliance data to identify noncompliance and focus on human health and environmental problems. Goal Met.</p> <p><i>Performance Measures:</i></p> <ul style="list-style-type: none"> —Operate 14 information systems housing national enforcement and compliance assurance data with a minimum of 95% operational efficiency. —Have Phase I of the ICIS fully operational in March 2002. 	95%	95%
FY 2001	<p>Same goal, different measures. Goal Met.</p> <p><i>Performance Measures:</i></p> <ul style="list-style-type: none"> —Continue operation and maintenance/user support of 14 information systems housing national enforcement and compliance assurance data with a minimum of 95% operational efficiency. —Complete Phase I of ICIS development (programming) and begin design of Phase II. 	95%	95%

APG 5.5 Quality Assurance (continued)		Planned	Actual
FY 2001 (continued)	—Complete Quality Management Plan project for additional data systems.	3	0
	—Complete detailed design (development of screens, prototypes) including a pilot NPDES permitting desk model for Permit Compliance System modernization.	1	1
	—Conduct four data analyses of environmental problems in Indian Country using the American Indian Lands Environmental Support Project and the baseline assessment survey.	4	12
<p>FY 2004 Result: FY 2004 modernization of the ICIS included Phase II for the Permit Compliance System which tracks the permitting, enforcement, and compliance programs within the Clean Water Act to ensure that surface waters can be used for drinking, recreation, and other activities. EPA is working with the states to improve the quality and comprehensiveness of the data and to reduce transaction costs through strategies such as exchanging data electronically, adhering to all Agency data standards, and integrating the new system with other EPA systems. When complete, ICIS will enable EPA to better review environmental and compliance data to help target compliance and enforcement efforts on those permittees that pose the greatest potential risks to human health and the environment. A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 46.</p>			

APG 5.6 Capacity Building		Planned	Actual
FY 2004	<p>Improve capacity of states, localities and tribes to conduct enforcement and compliance assurance programs. EPA will provide training as well as assistance with state and tribal inspections to build capacity. Goal Met.</p> <p>Performance Measure:</p> <p>Conduct EPA-assisted inspections to help build state program capacity.</p>	400	600
FY 2003	Same Goal, different target. Goal Met.	250	1,027
FY 2002	<p>Same Goal, different measures. Goal Met.</p> <p>Performance Measures:</p> <p>—Conduct EPA-assisted inspections to help build state program capacity.</p> <p>—Number of EPA training classes/seminars delivered to states, localities and tribes to build capacity.</p> <p>—Provide tribal governments with 50 computer-based training (CBT) modules.</p> <p>—Total number of state and local students trained.</p> <p>—Train tribal personnel.</p>	<p>400</p> <p>200</p> <p>50</p> <p>4,900</p> <p>95</p>	<p>1,081</p> <p>319</p> <p>116</p> <p>6,631</p> <p>808</p>
FY 2001	<p>Same Goal, different targets. Goal Met.</p> <p>Performance Measures:</p> <p>—Conduct EPA-assisted inspections to build capacity.</p> <p>—Number of EPA training classes/seminars delivered to states, localities and tribes to build capacity.</p> <p>—The National Enforcement Training Institute will provide tribal governments with 50 CBT modules.</p> <p>—Total number of state and local students trained.</p> <p>—The National Enforcement Training Institute will train tribal personnel.</p>	<p>150</p> <p>220</p> <p>50</p> <p>4,900</p> <p>105</p>	<p>895</p> <p>128</p> <p>235</p> <p>4,727</p> <p>428</p>

APG 5.6 Capacity Building *(continued)***Planned****Actual**

FY 2004 Result: EPA has authorized most states and some tribes to carry out Federal environmental regulatory programs. Although state regulatory partners have the responsibility for conducting the majority of inspections, EPA maintains a parallel regulatory authority and ensures that authorized states and tribes have the capacity to properly conduct inspections, especially for modified or new regulations. EPA conducts joint inspections with the states and tribes to build capacity to conduct thorough and complete inspections under both existing and new regulations.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 46-47.

STRATEGIC OBJECTIVE: BY 2008, IMPROVE ENVIRONMENTAL PROTECTION AND ENHANCE NATURAL RESOURCE CONSERVATION ON THE PART OF GOVERNMENT, BUSINESS, AND THE PUBLIC THROUGH THE ADOPTION OF POLLUTION PREVENTION AND SUSTAINABLE PRACTICES THAT INCLUDE THE DESIGN OF PRODUCTS AND MANUFACTURING PROCESSES THAT GENERATE LESS POLLUTION, THE REDUCTION OF REGULATORY BARRIERS, AND THE ADOPTION OF RESULTS-BASED, INNOVATIVE, AND MULTIMEDIA APPROACHES. FY 2004 Cost (in thousands): \$131,245 (18.3% of FY 2004 Goal 5 Total Costs)

Progress Toward Strategic Objective: Through 2004 EPA and its state and tribal partners have achieved considerable progress towards this objective. Combined 2004 results of EPA's pollution prevention programs exceeded elimination of 600 million pounds of hazardous chemical use, 495 million gallons of water saved, and \$936,000 in company cost savings. An additional benefit of the Agency's pollution prevention work was the elimination of 77 metric tons of carbon dioxide. Through expanded outreach efforts, EPA has made considerable progress in encouraging development of new safer and environmentally-friendly chemicals, products and processes through its Design for the Environment, Green Chemistry Challenge, and Green Supplier Network Programs that will deliver continuing environmental and human health benefits in coming years.

Current data show that EPA has accomplished its 2008 goal of a voluntary 50% reduction in priority chemicals in hazardous waste streams using the FY 1991 baseline.²⁶ In response to this success, EPA has developed a new data set, performance measure and baseline to track reductions in priority chemicals that were introduced in the FY 2006 annual plan and budget cycle. The new performance measure will capture information from an expanded list of chemicals (23 as opposed to 17) and will address both hazardous and non-hazardous waste streams. Beginning in November 2005, EPA will report on FY 2003 results and provide trend data using the new baseline.

APG 5.7 Reducing Persistent Bioaccumulative Toxics (PBTs) in Hazardous Waste Streams**Planned****Actual**

FY 2004	Reduce waste minimization priority list chemicals in hazardous waste streams an additional 3% {from 1991 levels} (for a cumulative total of 46% or 81 million pounds) by expanding the use of state and industry partnerships and regional pilots. Goal Met.	3%	Data available 2006
FY 2003	Reduce waste minimization priority list chemicals in hazardous waste streams by 43% to 86 million pounds by expanding the use of state and industry partnerships and regional pilots. Goal Met.	3%	Data available 2005

APG 5.7 Reducing Persistent Bioaccumulative Toxics (PBTs) in Hazardous Waste Streams *(continued)*

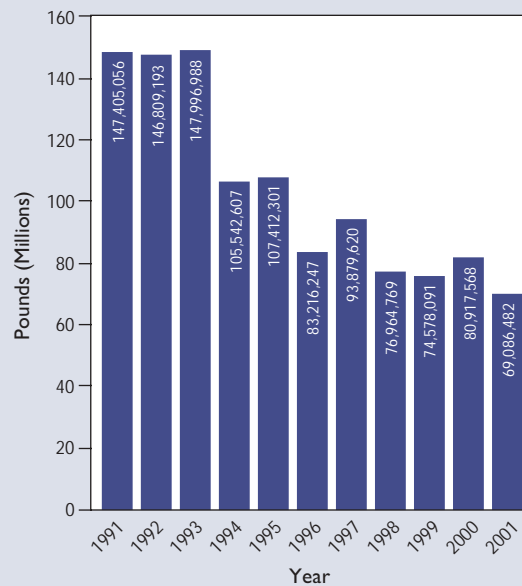
Planned

Actual

FY 2003 and 2004 Results: FY 2001 data, the most recent data available, show a voluntary reduction of 53% from the adjusted FY 1991 baseline of approximately 147 million pounds. Thus the target established for FY 2004 has already been met. In response to these better-than-expected results, EPA created a new performance goal and measure which monitors an expanded list of chemicals in both hazardous and non-hazardous waste streams. EPA's work to reduce or eliminate waste in manufacturing promotes economic development that does not compromise future needs.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 47.

Trend for GPRA Priority Chemicals (1991-2001)



APG 5.8 Improve Environmental Performance Through Pollution Prevention and Innovation

Planned

Actual

FY 2004	Prevent, reduce and recycle hazardous industrial/commercial chemicals and municipal solid wastes. <i>Performance Measures:</i> —Reduction of TRI non-recycled waste (normalized). —Alternative feed stocks, processes, or safer products identified through Green Chemistry Challenge Award (cumulative). —Quantity of hazardous chemicals/solvents eliminated through the Green Chemistry Challenge Awards Program —For eco-friendly detergents, track the number of laundry detergent formulations developed.	200 M Lbs 210 prod/proc 150 M Lbs 36	Data avail FY 2006 429 460 M Lbs 38
FY 2003	The quantity of TRI pollutants released, disposed of, treated or combusted for energy recovery in 2003 (normalized for changes in industrial production) will be reduced by 200 million pounds, or 2%, from 2002.	-200 M	Data avail FY 2005
FY 2002	The quantity of TRI pollutants released, disposed of, treated or combusted for energy recovery in 2002 (normalized for changes in industrial production) will be reduced by 200 million pounds, or 2%, from 2001. Goal Not Met.	-200 M	+366 M
FY 2001	The quantity of TRI pollutants released, disposed of, treated or combusted for energy recovery in 2001 (normalized for changes in industrial production) will be reduced by 200 million pounds, or 6.3%, from 2000. Goal Met.	-200 M	-464 M

APG 5.8 Improve Environmental Performance Through Pollution Prevention and Innovation *(continued)*

Planned

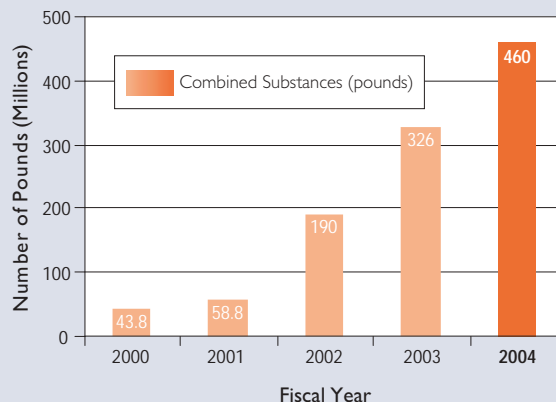
Actual

FY 2004 Result: EPA's efforts to prevent pollution through outreach, recognition and technical support resulted in the elimination of 387 million pounds of hazardous chemicals/solvents and increased demand for "green" products and purchases. The Agency's Green Chemistry Challenge program provides Presidential recognition to industries and academia for the development of cleaner and safer chemicals, products and processes. The Agency's recently expanded outreach to promote the Challenge competition helped EPA to greatly exceed other pollution prevention targets. In FY 2004, EPA's efforts resulted in the saving of 440 million gallons of water. An additional benefit of the Agency's pollution prevention work was the elimination of 77 metric tons of carbon dioxide. EPA also exceeded its target for developing 8 additional environmentally-friendly laundry detergent formulations bringing the cumulative total to 38. Introduction of these new products into commerce results in reduced use of water, energy and hazardous chemicals.

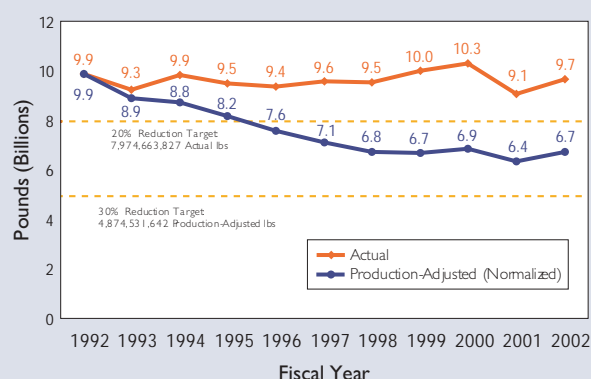
A description of the quality of the data used to measure EPA's performance can be found in Appendix B, pages 47-48.

FY 2002 Result Available in FY 2004: EPA did not meet its goal. TRI non-recycled waste increased by approximately 601 million pounds (6.6%) from 2001-2002, compared to the target of a 2% reduction. When these numbers are adjusted to account for changes in production, the result is only a 366 million pound increase (5.7%). EPA's progress toward reduction of TRI pollutants can vary from year to year, due to reporting system rules, industry estimation methods, and collection methods. The Agency is aware of the performance issue and has taken the necessary steps to enhance data quality and perform the analysis to address potential outliers within the TRI data. However, even with the 2002 increase in TRI non-recycled wastes, the long-term trend (1992-2002) shows continued reduction of 3 billion pounds of TRI wastes that would otherwise have been generated.

Green Chemistry Challenge Program, 2000–2004
Number of Pounds of Hazardous Chemicals/Solvents Eliminated

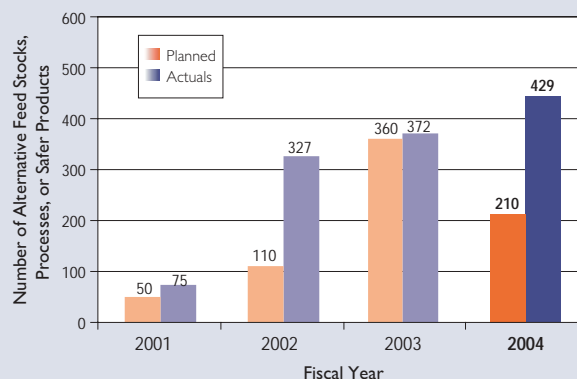


Toxics Release Inventory (TRI) Non-Recycled Waste Trends



Data Source: EPA's Toxics Release Inventory, Office of Environmental Information, March 7, 2003 TRI Data

Green Chemistry Challenge Award, 2001–2004



STRATEGIC OBJECTIVE: THROUGH 2008, ASSIST ALL FEDERALLY RECOGNIZED TRIBES IN ASSESSING THE CONDITION OF THEIR ENVIRONMENT, HELP IN BUILDING THEIR CAPACITY TO IMPLEMENT ENVIRONMENTAL PROGRAMS WHERE NEEDED TO IMPROVE TRIBAL HEALTH AND ENVIRONMENTS, AND IMPLEMENT PROGRAMS IN INDIAN COUNTRY WHERE NEEDED TO ADDRESS ENVIRONMENTAL ISSUES. FY 2004 Cost (in thousands): \$63,856 (8.9% of FY 2004 Goal 5 Total Costs)

Progress Toward Strategic Objective: In FY 2004, EPA increased assistance to tribes for assessing environmental conditions, building capacity to administer multi-media programs, and implementing environmental programs in Indian country. EPA is on track to meet its FY 2008 objective. EPA's strategy for increasing tribal capacity involves working with tribes to develop environmental expertise for tribes and providing information tribes need to meet EPA and tribal environmental priorities. The Agency is also enhancing its ability to analyze conditions on Indian lands and evaluate the effects of EPA and tribal actions on environmental conditions. In FY 2004, EPA increased the number of tribes who are developing environmental program capacity and the Agency increased its environmental presence in Indian Country through its direct implementation and the EPA/tribal environmental agreements.

APG 5.9 Tribal Environmental Baseline/Environmental Priority		Planned	Actual
FY 2004	Percent of Tribes will have an environmental presence (e.g., one or more persons to assist in building Tribal capacity to develop and implement environmental programs. Goal Met. <i>Performance Measures:</i> — Tribes with delegated and non-delegated programs (cumulative). — Tribes with EPA-reviewed monitoring and assessment occurring (cumulative). — Tribes with EPA-approved multimedia workplans (cumulative).	5% 20% 18%	28% 44% 26%
FY 2003	In 2003 the American Indian Environmental Office will evaluate non-Federal sources of environmental data pertaining to conditions in Indian Country to enrich the Tribal Baseline Assessment Project. Goal Met.	20	20
FY 2002	Baseline environmental information will be collected for 38% of tribes (covering 50% of Indian Country). Goal Met. <i>Performance Measure:</i> Environmental assessments for tribes (cumulative).	217 tribes	331 tribes
FY 2001	Same goal, different targets. Goal Met.	193	207
<p>FY 2004 Result: Under Federal environmental statutes, EPA has responsibility for assuring human health and environmental protection in Indian country. EPA has worked toward this goal by providing 86% of tribes with access to funds to hire environmental expertise. As of FY 2004, 490 of the 572 eligible federally recognized tribes and intertribal consortia have at least one person working in their communities to help build and administer environmental programs. In turn 28% of tribes have developed the capacity to implement tribal environmental programs through delegated and non-delegated program authority. EPA continues to work with tribes to develop multi-media workplans that prioritize their environmental protection programs.</p> <p>A description of the quality of the data used to measure EPA's performance can be found in Appendix B, pages 48-49.</p>			

STRATEGIC OBJECTIVE: THROUGH 2008, STRENGTHEN THE SCIENTIFIC EVIDENCE AND RESEARCH SUPPORTING ENVIRONMENTAL POLICIES AND DECISIONS ON COMPLIANCE, POLLUTION PREVENTION, AND ENVIRONMENTAL STEWARDSHIP. FY 2004 Cost (in thousands): \$87,372 (12.2% of FY 2004 Goal 5 Total Costs)

Progress Toward Strategic Objective: In FY 2004 EPA continued its progress in conducting leading-edge research in support of environmental policies and decisions on compliance, pollution prevention, and environmental stewardship. In addition to verifying the performance of 35 innovative environmental technologies to assist states, technology purchasers, and the public in making technology selection decisions, EPA also provided tools and assessments for reducing environmental impacts in both the private and public sectors. Specifically, EPA's Office of Research and Development issued a web-based catalog of current state-of-the-art environmental impact models, released a multi-media training CD-ROM for federal, regional, state, and local governments, and for assistance providers for use in developing organizational pollution prevention strategies, and held a workshop on effective electronics product stewardship, reuse, recycling, and disposal. In total, these efforts will assist industry, regulators, and the public in making informed decisions that prevent and/or reduce pollution.

APG 5.10 New Technologies		Planned	Actual
FY 2004	Verify 35 air, water, greenhouse gas, and monitoring technologies (through the Environmental Technology Verification (ETV) program) so that states, technology purchasers, and the public will have highly credible data and performance analyses on which to make technology selection decisions. Goal Met.	35	35
FY 2003	Develop 10 testing protocols and complete 40 technology verifications for a cumulative ETV program total of 230 to aid industry, states, and consumers in choosing effective technologies to protect the public and environment from high risk pollutants. Goal Met.	10 40	10 40
FY 2002	Formalize generic testing protocols for technology performance verification, and provide additional performance verifications of pollution prevention, control and monitoring technologies in all environmental media. Goal Met. Performance Measure: Complete 20 stakeholder approved and peer-reviewed test protocols in all environmental technology categories under ETV, and provide them to testing organizations world-wide.	20	20
FY 2001	Develop, evaluate, and deliver technologies and approaches that eliminate, minimize, or control high risk pollutants from multiple sectors. Emphasis will be placed on preventive approaches for industries and communities having difficulty meeting control/emission/effluent standards. Goal Not Met. Performance Measure: Deliver a Report to Congress on the status and effectiveness of the ETV Program during its first 5 years.	1	0
<p>FY 2004 Result: Actual environmental risk reduction is directly related to performance and effectiveness of environmental technologies purchased and used. Private sector technology developers produce almost all the new technologies purchased in the U.S. and around the world. Purchasers and permittees of environmental technologies need an independent, objective, high quality source of performance information in order to make more informed decisions; and vendors with innovative, improved, faster and cheaper environmental technologies need a reliable source of independent evaluation to be able to penetrate the environmental technology market. In FY 2004 the ETV program verified the performance of innovative environmental technology in the areas of drinking water treatment, water quality protection, air and water monitoring, air pollution control, pollution prevention, and greenhouse gas reduction. For example, EPA verified the performance of a technology to remove solids and nutrients from swine manure at a concentrated animal feeding operation (CAFO). If these technologies are employed at CAFO facilities, solids could be removed from wastewater entering a lagoon storage pond and, in turn, reduce solids and nutrient loading to receiving streams and/or groundwater²⁷. EPA also verified diesel retrofit technologies which improve the environmental performance of diesel engines by reducing emission of particulate matter, nitrogen oxides, hydrocarbons, and carbon monoxide²⁸. These highly credible data and performance analyses will assist states, technology purchasers, and the public in making technology selection decisions.²⁹</p> <p>A description of the quality of the data used to measure EPA's performance can be found in Appendix B, page 49.</p>			

**ASSESSMENT OF IMPACTS OF FY 2004 PERFORMANCE ON FY 2005 ANNUAL PLAN:
THERE ARE NO CHANGES TO FY 2005 APGs BASED ON RESULTS OF FY 2004 PERFORMANCE.**

NOTES

- 1 More information on compliance assistance programs is available at <http://www.epa.gov/compliance/assistance/index.html>
- 2 More information on compliance incentives programs and the self-audit policy is available at <http://www.epa.gov/compliance/incentives/index.html>
- 3 More information on compliance monitoring and civil enforcement is available at <http://www.epa.gov/compliance>
- 4 More information on supplemental environmental projects is available at <http://www.epa.gov/compliance/civil/programs/seps/index.html>
- 5 For criminal enforcement actions, pounds of pollutants are calculated through the remediation of damages and/or compelling proper disposal, or from otherwise stopping pollutants from illegally entering the environment. More information on the criminal enforcement program is available at <http://www.epa.gov/compliance/criminal/index.html>. Appendix B contains information on data quality of the CRIMDOC data system.
- 6 U.S. Environmental Protection Agency, Office of Enforcement and Compliance Assurance, Case Conclusion Data Sheets, available at <http://www.epa.gov/compliance/resources/publications/planning/caseconc.pdf>. More information on settled cases and the environmental benefits achieved, including pounds of pollutants reduced, is available at <http://www.epa.gov/compliance/resources/cases/civil>
- 7 This information was collected through exit surveys completed by users of the National Compliance Assistance Centers. U.S. Environmental Protection Agency, Office of Enforcement and Compliance Assurance. "Compliance Assistance Results." Available at <http://www.assistancecenters.net/results>.
- 8 U.S. Environmental Protection Agency. April 2004. *Performance Track Progress Report: Top Performers Solid Results*. EPA-100-R-04-004. Washington, DC. Available at <http://www.epa.gov/performancectrack>.
- 9 Available at <http://www.epa.gov/sectors/performance.html>
- 10 More information on health and environmental impacts of particulate matter is available at <http://www.epa.gov/air/urbanair/pm/hlth1.html>.
- 11 More information on enforcement cases and supplemental environmental projects is available at <http://www.epa.gov/region1/enforcementandassistance/index.html>.
- 12 U.S. Environmental Protection Agency, Office of Pollution Prevention and Toxics. "Green Chemistry Challenge." Internal database. Continually updated.
- 13 U.S. Environmental Protection Agency. Spring 2004. Internal document; no title. Prepared by CONNSTEP for Green Supplier Network.
- 14 U.S. Environmental Protection Agency. 2002 *Performance Track Annual Report*. Available at <http://www.epa.gov/performancectrack>.
- 15 Electronic communication from Noramtech Corporation to EPA Design for Environment staff, November 20, 2002.
- 16 See <http://www.epa.gov/etop> for more information.
- 17 "Pounds of pollutants reduced, treated, or eliminated" is an EPA measure of the quantity of pollutants that will no longer be released to the environment as a result of a noncomplying facility returning to its allowable limits through the successful completion of an enforcement settlement. In civil enforcement actions, facilities may further reduce pollutants by carrying out voluntary Supplemental Environmental Projects, which are actions taken to go beyond legal requirements. Online compliance information is available to the public via EPA's Enforcement and Compliance History Online (ECHO) Web Site: <http://www.epa.gov/echo>, EPA's Office of Enforcement and Compliance Assurance. Washington, DC.
- 18 "Environmental management practices" refers to a specific set of activities EPA tracks to evaluate changes brought about through assistance, incentives, and concluded enforcement actions. Implementing or improving environmental management practices—for example, by changing industrial processes; discharges; or testing, auditing, and reporting—may assist a regulated facility in remaining in compliance with environmental requirements. Further information on environmental management practices is available in EPA's Case Conclusion Data Sheet Training Booklet, available online at <http://www.epa.gov/compliance/resources/publications/planning/caseconc.pdf>.
- 19 Compliance Clearinghouse is available at <http://cfpub.epa.gov/clearinghouse>.
- 20 Compliance Assistance Centers are available at <http://www.assistancecenters.net>.
- 21 More information on compliance incentives programs available at <http://www.epa.gov/compliance/incentives/index.html>.
- 22 More information on compliance monitoring and civil enforcement available at <http://www.epa.gov/compliance>.
- 23 More information on the criminal enforcement program is available at <http://www.epa.gov/compliance/criminal/index.html>.
- 24 More information on settled cases and the environmental benefits achieved, including pounds of pollutants reduced, available at <http://cfpub.epa.gov/compliance/resources/cases/civil>.
- 25 More information on EMS available at <http://www.epa.gov/compliance/incentives/ems/index.html>.
- 26 A report on voluntary priority chemical reductions is found at <http://www.epa.gov/epaoswer/hazwaste/minimize/trends.htm>. For general information on the waste minimization program, go to <http://www.epa.gov/epaoswer/hazwaste/minimize/index.htm>.
- 27 http://www.epa.gov/etv/pdfs/vrvs/09_vr_max1016.pdf
- 28 http://www.epa.gov/etv/pdfs/vrvs/05_vr_lubrizol.pdf
http://www.epa.gov/etv/pdfs/vrvs/05_vr_CDT.pdf
- 29 See <http://www.epa.gov/etv> for more information.

CHAPTER 6: Supporting Achievement of Environmental Results



EPA's ongoing efforts to strengthen its management practices are integral to accomplishing its environmental and human health goals. The Agency continues to be recognized across government for linking resources to performance and using financial and performance information in day-to-day decision making. Making the connection between resources and results, for example, is a critical component of the Agency's effort to

EPA received the 2003 President's Quality Award for its accomplishments in financial performance

improve the ways it awards, administers, and oversees assistance agreements. Notably, EPA has worked to strengthen information security and to make real-time, high-quality environmental data more accessible to its federal, state, and tribal partners and to the American public. And Agency-wide human capital initiatives have strengthened the link between workforce planning, employee performance standards, and staff development and EPA's goals and mission. Through FY 2004, EPA continued its progress in managing for results and achieving reforms outlined in the President's Management Agenda (PMA).¹

Strengthening Results-Based Management

USING FINANCIAL AND PERFORMANCE DATA IN DAY-TO-DAY PROGRAM MANAGEMENT AND DECISION MAKING

In recognition of the Agency's efforts to use cost and performance information in making day-to-day decisions and its success in earning an unqualified (clean) audit opinion on its financial statements, EPA received the 2003 President's Quality Award for significant accomplishments in financial performance.² Since June 2003, EPA has maintained a green status score for "Improved Financial Performance"³ under the PMA. In addition, since June 2002 EPA has earned green progress scores for "Budget and Performance Integration" for all but one quarter.⁴ During FY 2004, EPA sustained its focus on managing for results and more closely linking cost and performance information. The Agency's FY 2004 accomplishments include:

- a comprehensive Agency-wide strategy for improving performance measurement through Measure Development and Implementation Plans, consideration of environmental indicators, and using other tools;
- more outcome-oriented annual performance goals and measures and new efficiency measures;
- a new financial structure providing greater program and project detail in the Agency's accounting system

for tracking resources across the Agency's five strategic goals; and

- launching the Office of the Chief Financial Officer's Reporting and Business Intelligence Tool, a reporting tool that makes financial and operational information readily accessible to Agency managers.

A COMMON FRAMEWORK

In FY 2004, EPA regions, working with states and tribes, developed the first set of Regional Plans,^v which link regional environmental priorities to the Agency's five strategic goals. In addition, the Agency is continuing to develop and implement a new Annual Commitment System that fosters discussion and agreement between regional and national program offices on FY 2005 regional performance commitments. The new system facilitates regional, state, and tribal negotiations; makes the commitment process more

open, inclusive, and accessible to all parties; and reduces transaction costs.⁶

LINKING RESOURCES WITH RESULTS

Assistance agreements allow EPA's national program managers to work with grant recipients to deliver environmental protection to the public. To ensure that resources are being used efficiently and effectively, EPA is committed to improving its oversight of the award and administration of these agreements. In April 2003, EPA's Office of Administration and Resources Management (OARM) issued the Agency's first long-term Grants Management Plan⁷ outlining an aggressive approach to ensure that commitments are fully implemented and that employees are held accountable for effective grants management. The plan includes specific performance targets to measure progress (see sidebar). In FY 2004, EPA

Performance Targets and Current Results Under EPA's Grants Management Plan

Performance Measure	Target	Progress in FY 2004
Percentage of grants managed by certified project officers	100%	99.7%
Percentage of new grants subject to the competition order that are competed	60%	76.9%
Percentage of new grants to non-profit recipients subject to the competition order that are competed	55%	72.6%
* Percentage of active recipients who receive advanced monitoring	10%	6.6%
Percentage of regional grant packages submitted electronically	85%	97.2%
Percentage of eligible grants closed out	99% in 2002 90% in 2003	98.1% in 2002 82.6% in 2003
** Percentage of grant workplans that include a discussion of environmental results	70%	48.9%

* This performance measure is tracked on a calendar year basis. EPA is on track to meet its 2004 target.

** The Agency expects the percentage of workplans that include environmental results to substantially increase in 2005 as the result of the issuance of the Environmental Results Order, which takes effect in January 2005.



senior managers approved the Agency's first long-term Grants Management Training Plan.⁸ Linked to EPA's Human Capital Strategy,⁹ the training plan is designed to enhance the skills of all EPA personnel involved in grants management and to improve grant recipients' understanding of federal grant requirements. During FY 2004, for example, the Agency conducted several training sessions to assist tribes and nonprofit organizations in understanding and fulfilling their grants management responsibilities.¹⁰

EPA continues to identify potential vulnerabilities and address Agency-level challenges associated with grants management. In January 2004, the Agency issued an interim policy¹¹ on environmental results to improve EPA's ability to align grant activities with the goals and objectives outlined in the Agency's Strategic Plan.¹² Effective January 1, 2005, EPA will replace the interim policy with an EPA Order ensuring that EPA grants are results-oriented and aligned with the Agency's strategic goals. In addition, beginning in 2005, EPA intends to promote greater competition for grant awards by lowering the competition threshold and improving the quality of its competition review; enhancing procedures for advanced monitoring reviews (by identifying systemic issues earlier, adopting a statistical approach

to post-award monitoring, and other means); and issuing a policy on pre-award review of nonprofit applicants.

Improving Access to Environmental Information

SECURE, TIMELY INFORMATION FOR ENVIRONMENTAL DECISION MAKING

EPA's work in electronic government (e-Gov) and information security has improved federal, state, and public access to real-time, quality environmental information. EPA is enhancing its analytical capabilities by developing and deploying the Integrated Portal,¹³ the Environmental Information Exchange Network¹⁴ (Exchange Network), and the Electronic Content Management System¹⁵ and is implementing a standardized Agency infrastructure. These activities provide a foundation for the secure information sharing and exchange needed to promote data analysis and informed environmental decision making.

In FY 2004, targeted efforts to increase public participation, strengthen information security, and share critical environmental information helped EPA achieve a "green" status score for the first time on the PMA's e-Gov Initiatives scorecard.¹⁶ In FY 2004, the Exchange Network, a unified network integrating air, water, and waste systems, expanded its state and tribal links, adding nodes and data systems necessary for effective information sharing. The Exchange Network now has over 30,000 users; 13 states have active portals into the system, and more than 10 national systems are linked for information sharing.¹⁷ Several states are using the Exchange Network to allow industries to submit their discharge monitoring reports electronically, publish beach closures and advisory information on the Internet, and portray regional water quality.¹⁸

To ensure consistency between EPA, state, and tribal data, EPA developed web

services for its Substance Registry System and Facility Registry System, providing state and tribal access to the most current information on chemicals and facilities. In addition, EnviroFlash,¹⁹ a new service offered by the Central Data Exchange,²⁰ allows the public and EPA's government partners access to environmental news, updates, and real-time information by sending environmental updates on specific programs to citizens and providing alerts on air, land, and water issues. During FY 2004 EPA continued to implement its comprehensive Quality System to ensure that quality data is used and disseminated. In addition, by correcting potential vulnerabilities in laboratory data practices, the Agency strengthened its ability to generate credible data for environmental decision making. EPA continued to implement the Data Quality Act, reviewing informational products in response to public notifications and making corrections as needed.²¹

Implementing Human Capital Strategies to Achieve Results

EPA's achievement of its environmental and human health goals depends on its ability to develop and sustain a highly skilled, diverse, results-oriented workforce with the right mix of technical expertise, experience, and leader-

ship capabilities. In FY 2004, EPA revised its human capital strategy to reflect lessons learned in implementing its original FY 2000 strategy and to incorporate PMA human capital requirements.²² In FY 2004, the Agency implemented many of the initiatives presented in *Investing in Our People II, EPA's Strategy for Human Capital: 2004 and Beyond*: linking all employee performance standards to EPA's five strategic goals; developing a comprehensive strategic workforce strategy and deployment plan; providing restructuring options to all EPA senior managers; and monitoring and reporting diversity statistics so the Agency can address under-representation. EPA also developed an accountability plan to track the Agency's progress in implementing its human capital strategy and to assess the strategy's effectiveness and impact.²³

In FY 2004, EPA implemented a National Strategic Workforce Planning System²⁴ that allows the Agency to identify the skills and competencies of the current workforce, project future workforce requirements, and identify and fill any gaps. A consulting team of human resource professionals schooled in workforce planning assessment and analysis will assist EPA program offices in shaping their workforce planning efforts.²⁵ EPA also developed a plan for moving all GS (general schedule) employees to a multilevel performance appraisal system by July 2005.



Assessing Management and Program Operations

EPA's Office of the Inspector General (OIG) contributes to improved environmental quality and human health by assessing the effectiveness of EPA's program management and results, developing recommendations for improvement, and ensuring that Agency resources are used as intended. The OIG's



activities help promote operational integrity and public confidence in the Agency. In addition to conducting audits, evaluations, and investigations that examine systemic issues and provide recommendations for strengthening the Agency's efforts, the OIG provides hotline services and reviews public complaints about EPA programs and activities. The following examples are illustrative of the OIG's work to help EPA more efficiently and effectively achieve environmental results:²⁶

- As a result of OIG investigations, fraudulent testing of discharge monitoring samples by one company's laboratories has been halted, and a university has instituted a robust quality assurance program and is now providing high-quality data to the public.

- An OIG report described the serious environmental effects of hardrock mining on ground and surface waters, soils, and air and the billions in potential cleanup costs (potential costs to EPA are more than 12 times the Agency's current Superfund budget). As a result, EPA proceeded to implement OIG recommendations for improving decision making at hardrock mining sites, including identifying innovative or new remediation technologies for hardrock mining sites and assessing the need for technical or mining management guidance.
- In response to OIG recommendations, EPA arranged for a peer review of an alternative asbestos demolition method that resulted in significant changes to ensure a more valid test.
- The OIG evaluated an October 2003 EPA rule regarding Clean Air Act New Source Review (NSR) applications to existing facilities that contribute to air pollution. The OIG raised significant concerns about the rule's impact on EPA's enforcement policies and procedures and recommended that NSR enforcement against coal-fired electric utilities continue in the same manner and to the same extent as before the 2003 rule was issued.

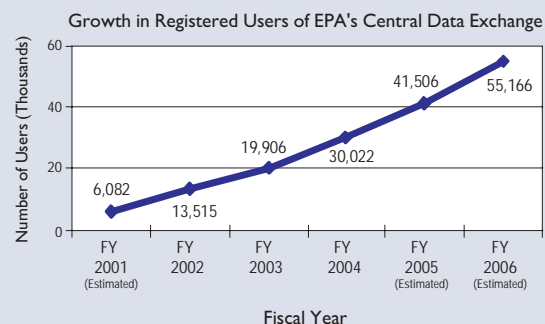
EPA'S SUPPORTING MANAGEMENT GOALS (SMG)

Annual Performance Goals Met: 6
Annual Performance Goals Not Met: 1
Data Available After 11/5/04: 1

Resources for these programmatic support activities are captured in the preceding 5 chapters.

APG SMG-I	Information Exchange Network	Planned	Actual
FY 2004	<p>Improve the quality, comparability, and availability of environmental data for sound environmental decision-making through the Central Data Exchange (CDX). Goal Met.</p> <p><i>Performance Measures:</i></p> <ul style="list-style-type: none"> —Number of private sector and local government entities, such as water authorities, using CDX to exchange environmental data with EPA. —CDX offers online data exchange for all major national systems by the end of FY 2004. —Number of states using CDX as the means by which they routinely exchange environmental data with two or more EPA media programs or regions. 	2,000 13 46	7,050 13 49
FY 2003	<p>Decision makers have access to the environmental data that EPA collects and manages to make sound environmental decisions while minimizing the reporting burden on data providers. Goal Not Met.</p> <p><i>Performance Measures:</i></p> <ul style="list-style-type: none"> —States using the CDX to send data to EPA. —In preparation for increasing the exchange of information through CDX, implement 4 data standards in 13 major systems and develop 4 additional standards in 2003. 	46 8	49 7
FY 2002	<p>The CDX, a key component of the environmental information exchange network, will become fully operational and 15 states will be using it to send data to EPA thereby improving data consistency with participating states. Goal Met.</p>	15	45

FY 2004 Result: Significant progress has been made in developing the Exchange Network over the past 3 years, including offering online data exchange through all 13 of EPA's major national databases. The numbers of Exchange Network nodes and data flows have increased making it possible for EPA and states to exchange and integrate large volumes of environmental data to enhance environmental decision-making. A key component to the Network is EPA's Central Data Exchange (CDX) and its ability to facilitate data exchange and information sharing for all environmental media. As a result of the deployment of electronic features that improve access (e.g., the updated Electronic Notice of Intent to Release and the Institutional Controls Tracking System) and increased TRI reporting through the CDX, EPA greatly exceeded its FY 2004 target for users of the CDX and the Exchange Network. The adjacent graph illustrates the increased total number of users (includes individuals from the private sector, local governments, and states) and the estimated growth through FYs 2005 and 2006.



A description of the quality of the data used to measure EPA's performance can be found in Appendix B page 49.

APG SMG-2	Data Quality and Accessibility	Planned	Actual
FY 2004	<p>EPA increasingly uses environmental indicators to inform the public and manage for results. Goal Met.</p> <p><i>Performance Measure:</i></p> <p>Establish the baseline for the suite of indicators that are used by EPA's programs and partners in the Agency's strategic planning and performance measurement process.</p>	I report	I report
FY 2003	<p>The public will have access to a wide range of federal, state, and local environmental conditions and features in an area of their choice. Goal Met.</p> <p><i>Performance Measure:</i></p> <p>Window-to-My-Environment nationally deployed and provides citizens across the country with Federal, state, and local environmental information specific to an area of their choice.</p>	Nationally Deployed	Nationally Deployed
FY 2002	<p>100% of the publicly available facility data from EPA's national systems accessible on the EPA Website will be part of the Integrated Error Correction Process, reducing data error. Goal Met.</p>	100%	100%
<p>FY 2004 Result: EPA released the first Draft Report on the Environment in June 2003. (The Report and additional information on EPA's Indicators Initiative are available at: http://www.epa.gov/indicators.) Through FY 2004, EPA maintained a national dialogue on the draft report with its partners and stakeholders on how to improve the Agency's ability to assess the nation's environmental quality and human health and how that information can be used to measure environmental results. EPA used remaining key data gaps and critical information needs identified to develop additional environmental indicators, which build EPA's analytical capacity and support sound environmental decision making. In FY 2004, EPA also developed a management report on options for enhancing access to the next Report on the Environment by making it easily available electronically. These FY 2004 efforts will guide the development of the next Report, expected to be released in FY 2006.²⁷</p> <div> <div>FY 2001 EI Initiative launched</div> <div>FY 2003 Published First-ever Draft Report on the Environment</div> <div>FY 2004 Developed concept for an electronic Report on the Environment</div> <div>FY 2005 Release prototypes of electronic Report on the Environment</div> <div>FY 2006 Release Report on the Environment</div> </div> <p>A description of the quality of the data used to measure EPA's performance can be found in Appendix B pages 49-50.</p>			

APG SMG-3	Information Security	Planned	Actual
FY 2004	<p>OMB reports that all EPA information systems meet/exceed established standards for security. Goal Met.</p> <p><i>Performance Measures:</i></p> <p>—Percent compliance with criteria used by OMB to assess Agency security programs reported annually to OMB under the Federal Information Security Management Act.</p> <p>—Percent of intrusion detection monitoring sensors installed and operational.</p>	75% 75%	91% 100%
FY 2003	<p>Same Goal. Goal Met.</p>	75% 75%	100% 100%

APG SMG-3 Information Security (continued)		Planned	Actual
FY 2002	Complete risk assessments on the Agency's critical infrastructure systems, critical financial systems, and mission critical environmental systems. Goal Met.		
	Performance Measures:		
	—Critical infrastructure systems risk assessment findings will be formally documented and transmitted to systems owners and managers in a formal Risk Assessment document.	12	12
	—Critical financial systems risk assessment findings will be formally documented and transmitted to systems owners and managers in a formal Risk Assessment document.	13	13
	—Mission critical environmental systems risk assessment findings will be formally documented and transmitted to system owners and managers in a formal Risk Assessment document.	5	5
<p>FY 2004 Result: EPA has made significant progress over the last 4 years in improving its information security program. For example, EPA succeeded for a second year in achieving 100% intrusion detection, and the Agency's compliance with OMB's security program criteria increased from 75% in FY 2003 to 91% in FY 2004. As part of this process, EPA implemented the Automated Security Self-Evaluation and Remediation Tracking (ASSERT) system to help manage its information security program. The ASSERT system provides a means for assessing security measures of EPA systems and generates the Federal Information Security Management Act (FISMA) report which is sent to OMB and forms the basis for Congressional FISMA scores.²⁸</p> <p>A description of the quality of the data used to measure EPA's performance can be found in Appendix B page 50.</p>			

APG SMG-4 Agency-Wide IT Infrastructure		Planned	Actual
FY 2004	Manage Agency-wide information technology assets consistent with the Agency's multi-year strategic information resource management plan (Enterprise Architecture) reflecting current Agency mission priorities and resources. Goal Met.	1 report	1 report
<p>FY 2004 Result: An essential component of EPA's multi-year strategic information resource management plan is the implementation of Agency-wide information technology (IT) enterprise solutions. EPA's IT infrastructure standardization and modernization efforts are integral components of the Agency's IT enterprise solutions. In FY 2004, EPA deployed Microsoft Office Suite as the first step in implementing its multi-phased strategy. Once fully implemented, the overall strategy will produce long-term cost savings; increased security; more rapid agency-wide deployment of e-Gov solutions and compliance with Federal Enterprise Architecture directions; and the ability to maintain cost-effective, stable information services over time as technology changes and new mission needs arise. These accomplishments are reported in the Technology Infrastructure business case of EPA's FY 2006 Annual Plan and Budget, and will be available after the release of the FY 2006 President's Budget request.</p> <p>A description of the quality of the data used to measure EPA's performance can be found in Appendix B page 52.</p>			

APG SMG-5 Energy Consumption and Reduction		Planned	Actual
FY 2004	By 2004, EPA will achieve a 16% energy consumption reduction from 1990 in its 21 laboratories which is in line to meet the 2005 requirement of a 20% reduction from the 1990 base (this includes Green Power purchases).	16%	Data avail 2005

APG SMG-5	Energy Consumption and Reduction	(continued)	Planned	Actual
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FY 2004 Result: The Agency is forecasting a 17.1% savings in overall energy consumption in FY 2004 from the FY 1990 baseline. This estimate is based on actual data from the first two quarters of FY 2004 plus a forecasting process that looks at all energy projects due for completion during FY 2004 and the aggregate percent reductions that should be achieved from completing these projects.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B page 50.

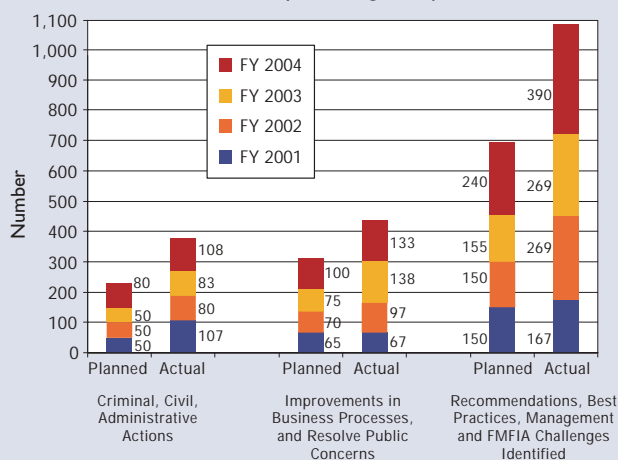
APG SMG-6	GPRA Implementation	Planned	Actual
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FY 2004	<p>Strengthen EPA's management services in support of the Agency's mission while addressing the challenges included in the President's Management Agenda. Goal Met.</p> <p><i>Performance Measures:</i></p> <ul style="list-style-type: none"> —Offices using workforce planning model which identifies skills and competencies needed by the Agency for strategic recruitment, retention, and development. —Percentage of total eligible service contracting dollars obligated as performance-based in FY 2004. —The number of financial and resource performance metrics where the Agency has met pre-established Agency or Government-wide performance goals. The inventory of financial performance metrics are found in the Agency's Chief Financial Officer Financial Performance Measures and the Government-wide Performance Metrics. The inventory of resource performance metrics are found in the Senior Resource Official Performance Measures. —Agency audited financial statements are timely, and receive an unqualified opinion. 	<p>10</p> <p>20%</p> <p>14</p> <p>1</p>	<p>10</p> <p>21%</p> <p>14</p> <p>1</p>
FY 2003	<p>Strengthen EPA's management services in support of the Agency's mission while addressing the challenges included in the President's Management Agenda. Goal Not Met.</p> <p><i>Performance Measures:</i></p> <ul style="list-style-type: none"> —Offices using workforce planning model which identifies skills and competencies needed by the Agency for strategic recruitment, retention, and development. —Percentage of total eligible service contracting dollars obligated as performance-based in FY 2003. —Agency audited financial statements are timely, and receive an unqualified opinion. 	<p>5</p> <p>30</p> <p>1</p>	<p>5</p> <p>19</p> <p>1</p>
FY 2002	<p>EPA strengthens goal-based decision making by developing and issuing timely planning planning and resource management products that meet customer needs. Goal Met.</p> <p><i>Performance Measures:</i></p> <ul style="list-style-type: none"> —Agency's audited financial statements and Annual Report are submitted on time. —Agency's audited financial statements receive an unqualified opinion and provide information that is useful and relevant to the Agency and external parties. 	<p>3/01/02</p> <p>1</p>	<p>2/27/02</p> <p>1</p>

APG SMG-6 GPRA Implementation (continued)		Planned	Actual
FY 2001	Same goal. Goal Met.	3/01/01 (timelines) I (opinion)	3/01/01 (timelines) I (opinion)
<p>FY 2004 Result: In February 2004, the Agency completed the 2003/2004 National Strategic Workforce Planning System pilot which tested the functional elements of the Agency's workforce planning process. As a result of lessons learned during the pilot, the Agency focused the remainder of its FY 2004 workforce planning efforts on developing and implementing the Agency's strategic workforce requirements and the capacity to meet those requirements. Based on Agency strategic goals and ongoing work, EPA was able to identify priority occupations and mission critical competencies needed to accomplish its goals through 2008. In addition, the Agency identified anticipated gaps in these priority occupations and is using these data to establish recruitment, retention, and development strategies (including succession planning).</p> <p>Twenty-one percent of the Agency's total eligible service contracting dollars were performance-based in FY 2004, exceeding the annual target. EPA's success with performance-based contracting includes lower contractor performance risks, use of more efficient and innovative methods by contractors, results-oriented approaches, and more meaningful contractor surveillance.</p> <p>EPA met its target of 14 financial and performance metrics. Examples of financial and resource performance metrics used by the Agency to measure financial management excellence include SF 224 reconciliation, electronic funds transfer payroll payments, obligation monitoring, percent of non-credit card invoices paid on time, and purchase card delinquency rates.</p> <p>In addition, EPA's FY 2004 financial statements received a clean audit opinion from the Office of the Inspector General (OIG).</p> <p>A description of the quality of the data used to measure EPA's performance can be found in Appendix B pages 50-51.</p>			

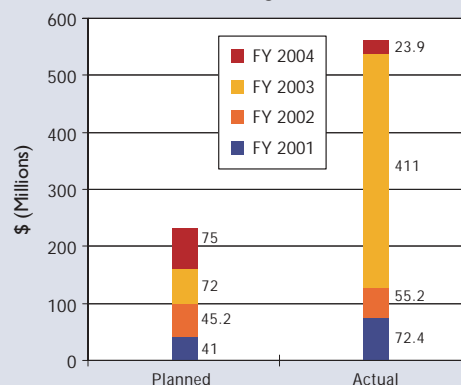
APG SMG-7 Contributing to Improved Agency Business Practices and Accountability		Planned	Actual
FY 2004	Improve Agency business and operations by identifying 240 recommendations, risks, and best practices; contributing to potential savings and recoveries equal to 150 percent of the annual investment in the OIG; 100 actions for greater efficiency and effectiveness, and 80 criminal, civil, or administrative actions reducing the risk of loss or integrity. Goal Not Met.	240 150% 100 80	390 48% 133 108
<p>FY 2004 Result: The OIG has exceeded its annual targets within this goal, except for realizing 150% potential dollar return on its budget. However, the cumulative return on the OIG budget from FY 2001 through FY 2004 far exceeded the cumulative target for the four years as illustrated in the adjacent chart. The individual target missed in FY 2004 is due to the unpredictability of fines, settlements, and questioned costs for any specific year. Longer term results for this measure are a more valid indicator of performance.</p> <p>A description of the quality of the data used to measure EPA's performance can be found in Appendix B page 52.</p>			

EPA's OIG Helps Improve Agency Management, Accountability, and Program Operations



Data obtained from OIG information systems, IGOR and PMRS.

EPA's OIG's Questioned Costs, Efficiencies, Savings, Fines, Recoveries

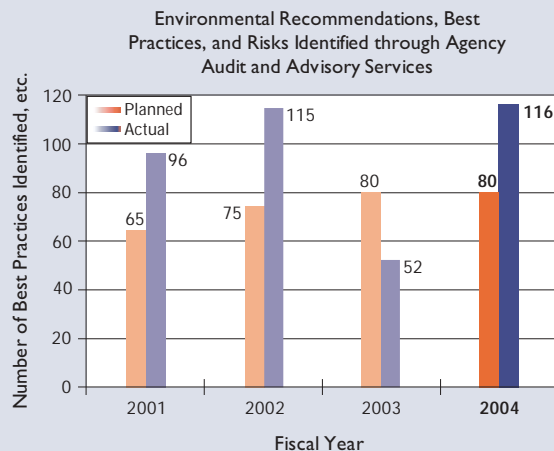
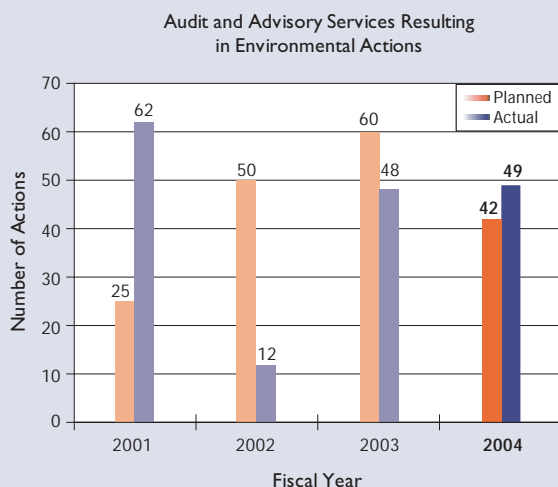


Data obtained from OIG information systems, IGOR and PMRS.

APG SMG-7 Contributing to Improved Agency Business Practices and Accountability (continued)

Planned

Actual



APG SMG-8 Contributing to Improved Health and Environment

Planned

Actual

FY 2004 Improve environmental quality and human health by identifying 80 recommendations, risks, or best practices; and contributing to the reduction or elimination of 18 environmental risks, and 42 actions influencing positive environmental or health impacts. **Goal Met.**

80

116

18

45

42

49

FY 2001 *Additional Performance Measure:*

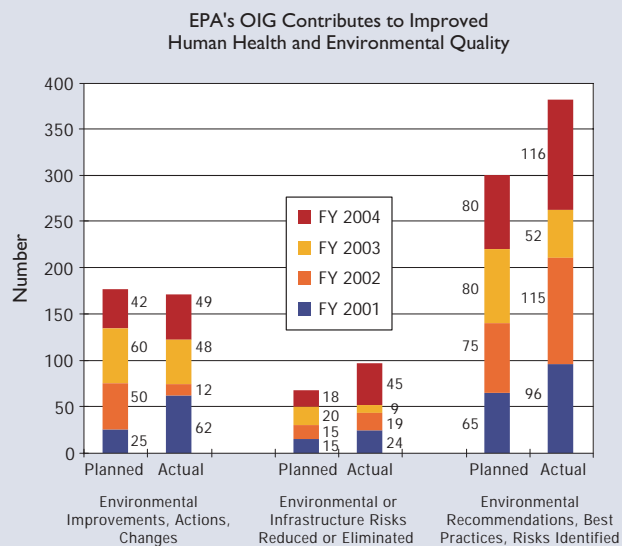
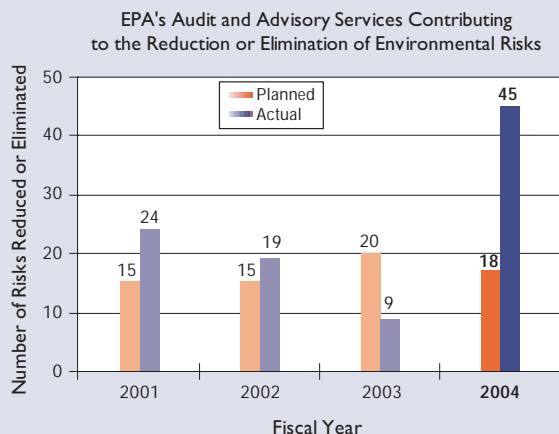
77%

80%

Overall customer and stakeholder satisfaction with audit products and services (timeliness, relevancy, usefulness, and responsiveness).

FY 2004 Result: The OIG exceeded all of its FY 2004 targets for this goal. The OIG plans to conduct additional follow-up work in FY 2005 to more completely capture results occurring in subsequent years for which there may be a significant time-lag. The adjacent chart illustrates OIG's long-term results against cumulative targets for FY 2001 through FY 2004.

A description of the quality of the data used to measure EPA's performance can be found in Appendix B page 52.



Data obtained from OIG information systems, IGOR and PMRS.

ASSESSMENT OF IMPACTS OF FY 2004 PERFORMANCE ON FY 2005 ANNUAL PLAN: THERE ARE NO CHANGES TO FY 2005 APGs BASED ON THE RESULTS OF FY 2004 PERFORMANCE.

NOTES

- 1 Executive Office of the President, Office of Management and Budget. 2002. *The President's Management Agenda: FY 2002*. Washington, DC: U.S. Government Printing Office. Available at <http://www.whitehouse.gov/omb/budget/fy2002/mgmt.pdf>.
- 2 Office of Personnel Management. December 17, 2003. *Memorandum for Heads of Executive Departments and Agencies: The 2003 President's Quality Award Winners*. Available at <http://www.opm.gov/hrmc/2003/msg-087a.asp>.
- 3 The President's Management Agenda Scorecard. Available at <http://results.gov/agenda/scorecard.html>.
- 4 The President's Management Agenda Scorecard. Available at <http://results.gov/agenda/scorecard.html>.
- 5 U.S. Environmental Protection Agency. 2004 Regional Plans. Available at <http://epa.gov/ocfo/regionplans/regionalplans2.htm>.
- 6 Refer to *Sustained Progress in Addressing Management Issues*, available at <http://www.epa.gov/ocfo/finstatement/2004ar/2004ar.htm>.
- 7 U.S. Environmental Protection Agency. April 2003. *Grants Management Plan*. EPA-216-R-03-001. Washington, DC. Available at <http://epa.gov/ogd/EO/finalreport.pdf>.
- 8 U.S. Environmental Protection Agency. September 2004. *Grants Management Training Plan*. EPA-216-R-04-001. Washington, DC.
- 9 U.S. Environmental Protection Agency. February 2004. *Investing in Our People II, EPA's Strategy for Human Capital: 2004 and Beyond*. EPA-200-R-04-001. Washington, DC. Available at <http://www.epa.gov/oarm/strategy.pdf>.
- 10 Refer to *Sustained Progress in Addressing Management Issues*, available at <http://www.epa.gov/ocfo/finstatement/2004ar/2004ar.htm>.
- 11 *Interim Policy on Environmental Results Under DPA Assistance Agreements*. GPI-04-02. Washington, DC.
- 12 U.S. Environmental Protection Agency. September 2003. *Direction for the Future*. EPA-190-R-03-003, Washington, DC. Available at <http://www.epa.gov/ocfo/plan/2003sp.pdf>.
- 13 U.S. Environmental Protection Agency, Office of Environmental Information. October 2004. *Celebrating Five Years of Success, Accelerating Our Progress in the Future*. EPA-245-R-04-003. Washington, DC. Available at http://www.epa.gov/OEI/pdf/oei_5th_anniversaryreport_final.pdf.
- 14 *Environmental Information Exchange Network*. Available at <http://www.exchangenetwork.net>.
- 15 U.S. Environmental Protection Agency, Office of Environmental Information. October 2004. *Celebrating Five Years of Success, Accelerating Our Progress in the Future*. EPA-245-R-04-003. Washington, DC. Available at http://www.epa.gov/OEI/pdf/oei_5th_anniversaryreport_final.pdf.
- 16 The President's Management Agenda Scorecard. Available at <http://results.gov/agenda/scorecard.html>. Also refer to *Sustained Progress in Addressing Management Issues*, available at <http://www.epa.gov/ocfo/finstatement/2004ar/2004ar.htm>.
- 17 U.S. Environmental Protection Agency. June 2004. *e-Government @ EPA: Accelerating Our Progress Using New Information Technologies*. EPA-245-R-04-002. Washington, DC. Available at <http://epa.gov/pmaresults/e-gov.pdf>.
- 18 Refer to *Sustained Progress in Addressing Management Issues*, available at <http://www.epa.gov/ocfo/finstatement/2004ar/2004ar.htm>.
- 19 EnviroFlash. Available at <http://www.exchangenetwork.net>.
- 20 U.S. Environmental Protection Agency. *EPA's Central Data Exchange*. Available at <http://www.epa.gov/cdx/>.
- 21 Memorandum from Paul Gilman, Assistant Administrator, Office of Research and Development, March 10, 2004, "New Policy Directive on Assuring and Documenting the Competency of Agency Laboratories." More information on EPA's Information Quality Guidelines is available at <http://epa.gov/quality/informationguidelines/index.html>.
- 22 U.S. Environmental Protection Agency. February 2004. *Investing in Our People II, EPA's Strategy for Human Capital: 2004 and Beyond*. EPA-200-R-04-001. Washington, DC. Available at <http://www.epa.gov/oarm/strategy.pdf>.

- 23 U.S. Environmental Protection Agency. February 2004. *Investing in Our People II, EPA's Strategy for Human Capital: 2004 and Beyond*. EPA-200-R-04-001. Washington, DC. Available at <http://www.epa.gov/oarm/strategy.pdf>.
- 24 U.S. Environmental Protection Agency. February 2004. *Investing in Our People II, EPA's Strategy for Human Capital: 2004 and Beyond*. EPA-200-R-04-001. Washington, DC. Available at <http://www.epa.gov/oarm/strategy.pdf>.
- 25 Refer to *Sustained Progress in Addressing Management Issues*, available at <http://www.epa.gov/ocfo/finstatement/2004ar/2004ar.htm>.
- 26 U.S. Environmental Protection Agency. *Office of Inspector General Semiannual Reports to Congress for the periods October 1, 2003 to March 31, 2004; and April 1, 2004 to September 30, 2004*. Available at <http://www.epa.gov/oig>.
- 27 U.S. Environmental Protection Agency, Office of Environmental Information. April 2004. *Summary Report the National Dialogue on the Draft Report on the Environment 2003*. Available at http://www.epa.gov/indicators/docs/National_Dialogue_Summary_Report.pdf.
- 28 U.S. Environmental Protection Agency's FY 2004 Federal Information Security Management Act Report will be released consistent with Office of Management and Budget schedule and guidance available at <http://www.whitehouse.gov/omb/memoranda/fy04/m04-25.pdf>.